The 1997 Fishwheel Project on the Nass River, BC

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THE 1997 FISHWHEEL PROJECT ON THE NASS RIVER, BC

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TABLE OF CONTENTS

LIST OF TABLES V

LIST OF FIGURES VI

LIST OF APPENDICES VIII

ABSTRACT X

RÉSUMÉ XI

INTRODUCTION 1

Study Area 1

METHODS 1

Fishwheel Operation 1
Fishwheel Effort and Catch 2
Tagging 2
Tag Recovery 3
Escapement Estimates 3
In-season Escapement Estimates 3
Post-season Escapement Estimates 3
Run Reconstruction 4
Age and Length Sampling 4

RESULTS 5

Fishwheel Operation 5
Fishwheel Effort 5
Catches and Catch Per Unit Effort 5
Tagging 7
Tag Recovery 7
Escapement Estimates 8
In-season Escapement Estimates 8
Post-season Escapement Estimates 8
Run Reconstruction 9
Age and Length Sampling 9

DISCUSSION 10

Operational Evaluation 10
Escapement Estimates 10
Summary of Final Escapement Estimates 11
Fishwheels as a Test Fishery 11

ACKNOWLEDGMENTS 11

REFERENCES 13

TABLES 15

FIGURES 26

APPENDIX A 42

APPENDIX B 48

APPENDIX C 78

APPENDIX D 84

APPENDIX E 94

LIST OF TABLES

Table 1. Numbers of each species of salmon caught and tagged at four fishwheels on the Nass River, 1997 16

Table 2. A summary of the number of tag recoveries by location for the tags applied at the Nass River fishwheels, 1997 17

Table 3. Population estimates derived from tagging of adult sockeye and coho salmon at the Nass River fishwheels and recovery of tags at the Meziadin fishway, 1997 18

Table 4. Summary of escapement survey data and estimated escapement for chinook salmon, 1997 19

Table 5. The estimated percentages of adult chinook, sockeye, and coho captured with four fishwheels on the Nass River, 1997 20

Table 6. Means, standard errors and 95% confidence intervals for sockeye travel times from the fishwheels to the Meziadin fishway for 3-day release periods, 1997 21

Table 7. Summary of age composition of chinook, sockeye, and coho salmon sampled at the Nass River fishwheels, 1997 22

Table 8. Mean nose-fork length (cm) of salmon (by age) sampled at the Nass River fishwheels, 1997 23

Table 9. Summary of estimates of catch and escapement to the Nass River for chinook, sockeye, and coho salmon, 1997 24

Table 10. Comparison of stock composition estimates for Nass River sockeye salmon (percent Meziadin) from scale, GSI and tagging methods, 1986-97 25

LIST OF FIGURES

Figure 1. The Nass watershed showing locations of the fishwheels, the Meziadin fishway and chinook spawning areas that were surveyed.....27

Figure 2. Fishwheel effort (hours) and speed (RPM) for four fishwheels on the Nass River, 1997.....28

Figure 3. Fishwheel CPUE (catch per wheel hour) for adult chinook salmon captured with four fishwheels on the Nass River, 1997 29

Figure 4. Fishwheel CPUE (catch per wheel hour) for adult sockeye salmon captured with four fishwheels on the Nass River, 1997 30

Figure 5. Fishwheel CPUE (catch per wheel hour) for adult coho salmon captured with four fishwheels on the Nass River, 1997 31

Figure 6. Fishwheel CPUE (catch per wheel hour) for adult steelhead captured with four fishwheels on the Nass River, 1997 32

Figure 7. Fishwheel CPUE (catch per wheel hour) for adult pink salmon captured with four fishwheels on the Nass River, 1997 33

Figure 8. Fishwheel CPUE (catch per wheel hour) for adult chum salmon captured with four fishwheels on the Nass River, 1997 34

Figure 9. Time between release and recapture for chinook salmon tagged at fishwheels 1 and 2 and subsequently recaptured in the four fishwheels, 1997.....35

Figure 10. Time between release and recapture for sockeye salmon tagged at fishwheels 1 and 2 and subsequently recaptured in each of the four fishwheels, 1997 36

Figure 11. Daily counts and percent of fish with tags for sockeye and coho salmon passing through the Meziadin fishway, 1997 37

Figure 12. a) The distribution of travel times (days) to the Meziadin fishway for sockeye salmon tagged at the Nass River fishwheels and recovered at the Meziadin fishway, 1997; b) Mean travel time (with 95% confidence intervals) for 3-day release periods.....38

Figure 13. Percent of the sockeye salmon run captured by fishwheels 1 and 2 versus estimated daily escapement, 1997.....39

LIST OF FIGURES - Cont'd

Figure 14. Percent of the sockeye salmon run captured by fishwheels 1 and 2 versus level of the Nass River at Gitwinksihlkw, 1997 40

Figure 15. Weekly age composition of successfully aged sockeye salmon sampled from the Nass River fishwheel catch, 1997 41

LIST OF APPENDICES

Appendix A. Water temperature/level data and fishwheel effort, 1997 42

Table A-1. Minimum and maximum water level and temperature data collected in the Nass River near Gitwinksihlkw, 17 May to 16 September, 1997 43

Table A-2. Summary of daily fishwheel effort (hours), effort used to calculate CPUE and fishwheel speed (RPM) for four fishwheels operated on the Nass River, 1997 44

Figure A-1. Daily maximum water temperature and level in the Nass River near Gitwinksihlkw, 1997 47

Appendix B. Daily catches at the Nass River fishwheels, 1997 48

Table B-1. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for chinook salmon captured in the Nass River fishwheels, 1997 49

Table B-2. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for sockeye salmon captured in the Nass River fishwheels, 1997 53

Table B-3. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for coho salmon captured in the Nass River fishwheels, 1997 57

Table B-4. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for steelhead captured in the Nass River fishwheels, 1997 59

Table B-5. Daily catches of pink and chum salmon at the Nass River fishwheels, 1997 63

Table B-6. Catches of other species (non-Pacific salmon) captured in the Nass River fishwheels, 1997 66

Table B-7. Daily catches, numbers of fish marked, and CPUE (catch per hour) for Pacific lamprey captured in the Nass River fishwheels, 1997 70

Table B-8. Daily catches of Pacific salmon smolts captured in the Nass River fishwheels, 1997 74

Appendix C. Summaries of recovery data for fish tagged at the Nass River fishwheels, 1997 78

Table C-1. Summary statistics of travel time data for chinook, sockeye, and coho salmon tagged at the Nass River fishwheels, 1997 79

LIST OF APPENDICES – Cont'd

Table C-2. Travel time information for recoveries of tagged chinook salmon by location tagged and location recovered, 1997 80

Table C-3. Travel time information for recoveries of tagged sockeye salmon by location tagged and location recovered, 1997 81

Table C-4. Travel time information for recoveries of tagged coho salmon by location tagged and location recovered, 1997 83

Appendix D. Daily counts of salmon at the Meziadin fishway and in-season sockeye escapement estimates, 1997 84

Table D-1. Daily counts of sockeye salmon through the Meziadin fishway, 5 July to 29 September 1997 85

Table D-2. Daily counts of chinook, coho, steelhead and pink salmon through the Meziadin fishway, 5 July to 29 September 1997 88

Table D-3. The data used to derive the in-season sockeye salmon escapement estimates for the Nass River, 1997 91

Appendix E: Age and length data from fish captured in the Nass River fishwheels, 1997 94

Table E-1. Numbers of fish by age and length for chinook salmon sampled at the Nass River fishwheels, 1997 95

Table E-2. Numbers of fish by age and length for sockeye salmon sampled at the Nass River fishwheels, 1997 97

Table E-3. Summary of weekly age composition of sockeye salmon sampled at the Nass River fishwheels, 1997 98

Table E-4. Summary of the numbers and mean lengths (nose-fork, cm) of successfully aged sockeye salmon from the Nass River fishwheel catch, 1997 99

Table E-5. Numbers of fish by age and length for coho salmon sampled at the Nass River fishwheels, 1997 100

ABSTRACT

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Four fishwheels were operated on the lower Nass River from 21 May to 4 September 1997. The fishwheels operated for a total of 7,974 h and captured 48,267 salmon. Catches of adult salmon included 28,756 sockeye; 13,167 pink; 4,004 chinook; 1,708 coho; 502 steelhead; and 130 chum. Of these, 6,513 sockeye; 2,541 chinook; 1,020 coho salmon; and 394 steelhead were tagged. Totals of 429 chinook; 1,345 sockeye; and 367 coho salmon from the catch were successfully aged using scales. A total of 4,564 tagged fish were later recovered in upstream locations. Counts of marked and unmarked fish from the Meziadin fishway and in-river harvests were used to compute net escapement estimates for sockeye (250,456) and coho salmon (13,830). The coho estimate represented only a portion of the total coho escapement because the fishwheels did not operate through the entire coho run and recovery efforts were confined to an early run stock (Meziadin River). The net chinook escapement (18,702) was derived by a mark-recapture estimate (spawning ground surveys) minus estimated in-river harvests. The four fishwheels combined caught an estimated 18.6% of the chinook run, 10.2% of the coho run, and 10.6% of the portion of the sockeye. Including subsequent in-river harvests, an estimated 25,776 chinook and 287,242 sockeye salmon entered the Nass River in 1997. Daily tag release (at the fishwheels) and recovery data (at the Meziadin fishway) were used to reconstruct the sockeye abundance in the lower river and assess the within season variation in the portion of the sockeye run caught by the fishwheels.

RÉSUMÉ

Link, M.R., R.F. Alexander, and A.C. Blakley. 2001. The 1997 fishwheel project on the Nass River, BC. Can. Manuscr. Rep. Fish. Aquat. Sci. 2555: xi + 100 p.

Quatre filets rotatifs furent en opération sur la section inférieure de la rivière Nass pour un total de 7,974 heures et ont capturé 48,267 saumon entre le 21 mai et le 4 septembre, 1997. Des saumon adultes capturés nous comptons 28,756 saumon rouge, 13,167 saumon rose, 4,004 saumon quinnat, 1,708 saumon coho, 502 truites arc-en-ciel anadromes et 130 saumon kéta. De ceux-ci, 6,513 saumon rouge, 2,541 saumon quinnat, 1,020 saumon coho, et 394 truites arc-en-ciel anadromes étaient marqués. Nous avons réussi à déterminer l'âge de 429 saumon quinnat, 1,345 saumon rouge, et 367 saumon coho en nous servant des écailles. Nous avons récupéré 4,564 poissons marqués en amont. Nous nous sommes basés sur le compte de poissons marqués et non marqués de la passe migratoire Meziadin et de poissons capturés dans la rivière pour calculer l'estimation de l'échappée nette pour le saumon rouge (250,456) et le saumon coho (13,830). L'estimation du saumon coho ne représentait qu'une portion de l'échappée totale car les filets rotatifs n'étaient pas en opération durant toute la remontée du saumon coho et les efforts de récupération ont été limités au début de la remontée (Rivière Meziadin). L'échappée nette du saumon quinnat (18,702) fut dérivée de l'estimation de la récupération marquée (recherches de la frayère) moins l'estimation de la récolte dans la rivière. Les quatre filets rotatifs ont capturé approximativement 18.6% de la remontée du saumon quinnat, 10.2% de la remontée du saumon coho, et 10.6% de la remontée du saumon rouge. Y compris les récoltes subséquentes dans la rivière, une estimation de 25,776 saumon quinnat, et 287,242 saumon rouge sont entrés dans la rivière Nass en 1997. Nous nous sommes servis de la remise à l'eau journalière des poissons étiquetés (aux filets rotatifs) et des données de récupération (à la passe migratoire Meziadin) pour reconstruire l'abondance du saumon rouge dans la section inférieure de la rivière afin de déterminer les variations qui prennent place durant la saison dans la portion de la remontée du saumon rouge capturé par les filets rotatifs.

INTRODUCTION

This report documents the results of the sixth consecutive year of a fishwheel project on the Nass River (Link et al. 1996; Link and English 1996, 1997; Link and Gurak 1997; Link 1999). The report documents methods, fishwheel catches and effort, tagging and mark-recapture data, population estimates, and biological and age information obtained from the 1997 season.

The objectives of the 1997 Nass River fishwheel project were to:

1. use the fishwheels to capture, tag, and recapture sockeye salmon (*Oncorhynchus nerka*) for use in the in-season estimation of the sockeye escapement;

2. use the fishwheels to conduct a harvest of sockeye if an escapement surplus to spawning requirements (ESSR) fishery has been approved by Fisheries and Oceans Canada (no ESSR fishery was approved in 1997).

3. generate post-season estimates of the escapement of chinook (*O. tshawytscha*), sockeye, coho (*O. kisutch*), and steelhead (*O. mykiss*) returning to the Nass River and document the migration timing of each species; and

4. collect and summarize biological information from fish captured in the fishwheels.

The results from a mark-recapture experiment to estimate the chinook salmon abundance (using the fish tagged at the fishwheels) have been documented in a separate report (Link and Nass 1999). The steelhead escapement estimates have been summarized in Link et al. (2000).

Study Area

The Nass River drains 20,500 km^2, has an average annual discharge of 813 m^3s^{-1} and ranges from 24 m^3s^{-1} to 5437 m^3s^{-1} within years (Holland 1976). The river originates in the Skeena Mountains and flows south and southwest for approximately 400 km, entering the Pacific Ocean at Portland Inlet on the north coast of British Columbia (Fig. 1).

METHODS

Fishwheel Operation

Four fishwheels (Meehan 1961, Donaldson and Cramer 1971) similar to those described by Link and English (1996) were operated on the Nass River in 1997. Two fishwheels were operated near the village of Gitwinksihlkw and two were operated upstream of Grease Harbour (Fig. 1). Similar to fishwheel 2 in 1996 (Link 1999), all four fishwheels in 1997 were constructed almost entirely of aluminum. The design of the aluminum fishwheel was almost

identical to the previous design (Link and English 1996). The only difference was that the 2x4 inch lumber in the baskets (except for the slide assembly) was replaced with the square aluminum channel (3.8 cm x 3.8 cm, 30 mm thick walls). All the fishwheels were fitted with smaller 3.8 cm mesh (1½ inch stretched, knotless nylon mesh, BL 210-60) than had been used in previous seasons on the Nass River (except fishwheels 2 and 4 in 1996, when both were fitted with the 1½ inch mesh). Prior to 1996, all the Nass River fishwheels had been fitted with 9.8 cm, or $3^{7}/_{8}$ inch, *13x16* black knotted salmon seine net.

Daily maximum and minimum water temperatures (°C) and levels (m) at Gitwinksihlkw were recorded using an electronic data logger[3].

Fishwheel Effort and Catch

Daily fishing effort of the fishwheels was measured in two ways. First, total effort was measured as the total time each fishwheel was fishing from midnight to midnight each day. This effort value gave an indication of the amount of down time (non-operational time) associated with each date. Second, the effort used to calculate catch per unit effort (CPUE, fish per hour) was measured as the number of hours fishing that went into obtaining each day's catch. These two effort values were different on most days because the time of the last sampling session on each day varied; this affected how much effort went into a given day's catch. For example, if the last tagging session on day *t* finished at 2200 h, and on day *t+1* the last tagging session ended at 2000 h (all fish were removed after each session and the fishwheel fished continuously through day *t* and *t+1*), only 22 h of fishing effort went into obtaining the catch on day *t+1*; whereas the total effort for day *t+1* would be 24-h.

The speed of each fishwheel was determined each day by measuring the time required for the fishwheel to complete three revolutions. This value was converted to revolutions per minute (RPM). The arithmetic mean of the measurements was used when the fishwheel speed was measured more than once in a day.

Tagging

As in previous years, spaghetti tags and operculum tags were used for marking fish from the fishwheels and were used later for the mark-recapture population estimates. Numbered spaghetti tags (Floy Model FT-4)[4] were applied to sockeye (yellow) and coho (red), numbered operculum tags (Ketchum kurl-lock tag, No. 3 and No. 2)[5] to chinook and numbered pink Floy anchor tags were applied to steelhead. The spaghetti and anchor tags were applied through the dorsal musculature near the posterior end of the dorsal fin. The operculum tags were attached to the left opercle plate of chinook salmon. Pacific lamprey were marked with a single-hole paper punch by placing a 6 mm diameter hole in the dorsal area of the caudal fin (fish caught in

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[3] Unidata America, Lake Oswego, OR, USA
[4] Floy Tag and Manufacturing Co. Inc., 4616 Union Place N.E., Seattle, WA, 98105, USA
[5] Ketchum Manufacturing Sales Ltd., 396 Berkley Ave., Ottawa, Ont., K2A 2G6, Canada

fishwheels 1 and 2) and through the dorsal fin (fish caught in fishwheels 3 and 4). The handling and tagging procedures for salmon used in 1997 were the same as those used in previous years (Link et al. 1996).

Tag Recovery

Fish tagged at the fishwheels were recovered throughout the Nass River watershed using a variety of techniques. The majority of tagged sockeye and coho salmon were counted and/or recovered at the Meziadin fishway (150 river km upstream of the fishwheels; Haugan et al. 1989; Fig. 1). Tagged chinook salmon were recovered primarily during the spawning grounds surveys. Recoveries of tagged salmon were also obtained from the fishwheels (released live back to the river) and in-river net and sport fisheries.

The field crew working at the Meziadin fishway counted every tagged fish that passed through the fishway, and captured and recorded numbers from as many fish as possible, without excessively delaying the migration of fish. A portion of each day's tagged fish was captured by diverting the fish into a pen adjacent to the counting chute. The fish were then dipnetted out of the holding pen, the portion of the tag containing the tag number was cut off with scissors and the fish was released upstream of the fishway. With their tags clipped, the crew would know if a tagged fish had dropped back below the falls and reascended the fishway. The clipped tag was immediately obvious in the counting chute and a complete count of tagged fish using the fishway more than once could be obtained. In 1997, a new aluminum tag recovery pen replaced the steel pen used in previous years.

Escapement Estimates

In-season Escapement Estimates

In-season population estimates for sockeye salmon were derived using two methods. The first method provided escapement estimates using pre-season estimates of the combined catchability coefficient for the Gitwinksihlkw fishwheels. In contrast to previous years when a single mean of previous years' catchability was used, period-specific catchability estimates were used in 1997. This was done to account for apparent within-season changes in catch rates of the fishwheels. These factor-based escapement estimates were used in June and were based on estimated catch rates at these two fishwheel sites in 1994-1996. The second method used tag recovery data from the Grease Harbour fishwheels once sufficient numbers of tagged and untagged fish were recovered to derive a reliable mark-recapture estimate (Link and English 1996). In 1997, the mark-recapture estimate was considered to be the better of the two estimates by 6 July.

Post-season Escapement Estimates

Post-season population estimates were calculated for sockeye, coho, and chinook salmon using the tag recovery information from the Meziadin fishway and spawning ground surveys. These data were pooled to include fish tagged and examined over the entire run. The post-season

escapement estimates were made using the adjusted Petersen formula (Ricker 1975). For the sockeye and coho estimates, the fish examined at the Meziadin fishway were used as the recapture sample (C in the Petersen formula; Ricker 1975). For chinook salmon, live and dead fish from spawning ground surveys were pooled and used as the recapture sample. Confidence limits for the mark-recapture estimates were determined using Pearson's formulae (Appendix II of Ricker 1975). The chinook salmon mark-recapture experiment was summarized in a separate report (Link and Nass 1999).

Run Reconstruction

Daily sockeye salmon abundance at the fishwheel site were reconstructed using tag recovery data from the fishway (Link and English 1996) and these were compared to fishwheel catches to examine the variation in the estimated portion of the run the fishwheels caught through time. This was done to assess the suitability of the fishwheels as an in-season index of the sockeye salmon escapement to the lower river. The run reconstruction was possible because daily catch and tag totals from the fishwheels and the Meziadin fishway were known, as were the travel times for the tagged fish recovered at the fishway.

Age and Length Sampling

A portion of each day's catch in the Gitwinksihlkw fishwheels was sampled for scales, length, and sex. Both fixed-size sampling and proportional sampling were done in 1997. Up to 20 chinook per day were sampled for scales and nearly all tagged chinook were measured; for sockeye, approximately 10% of the catch was sampled (scales and length). Up to 20 coho salmon were sampled (length and scales) each day. Nearly all steelhead captured in all four fishwheels were sampled for scales, length, and sex. The nose-fork length was measured (to the nearest cm) using a fabric measuring tape affixed to the inside of the tagging tray. Jacks were defined as chinook salmon less than 50 cm (changed from 72 cm in previous years for this project), sockeye salmon less than 45 cm and coho salmon less than 40 cm. Two scales were taken from the preferred area for sockeye; five scales were collected from coho, chinook, and steelhead. Scales were mounted on numbered, gummed scale cards. Excluding the steelhead samples, scale samples were sent to the Department of Fisheries and Oceans Scale Lab in Nanaimo, BC. The steelhead samples were sent to the Ministry of Environment, Lands and Parks office in Smithers, BC.

Fish ages are presented using Gilbert-Rich notation where the first digit represents total age and the second digit denotes the number of winters the fish resided in fresh water since egg deposition. The daily catch of adult fish of each species at Gitwinksihlkw was used to derive species-specific daily CPUE (catch per unit effort) and these were used to weight the age composition data for chinook and coho. The age data for sockeye salmon were weighted with the reconstructed abundance obtained from tag recovery data. Sex was determined from visual inspection of the fish. However because the fish were ocean-bright, it was difficult to differentiate between males and females. Therefore, the sex data are not considered reliable and are not summarized here.

RESULTS

Fishwheel Operation

The level of the Nass River at Gitwinksihlkw varied by 3.8 m between 17 May and 16 September 1997 (Table A-1). The water levels showed significant day-to-day variability throughout the season with a steadily declining trend from late May until September with substantial peaks in early June and in early July (Fig. A-1). Water temperature ranged from 4.5°C to 11.5°C over the same period (Table A-1; Fig. A-1).

Fishwheel 1 was operated at the same location used from 1992-1996. Fishwheel 2 was operated at the same location used from1994-1996. Fishwheels 3 and 4 were operated at the same locations for most of 1994, and all of 1995 and 1996. Small changes in the position of fishwheels relative to the bank were common.

Fishwheel Effort

The fishwheels were operated from 21 May (fishwheel 2) to 4 September (fishwheels 3 and 4) for an estimated total fishing time of 7,974 h (Table A-2). Combined, the four fishwheels fished 96.3% of the time they were in place (Fig. 2). Fishwheel 2 began fishing the earliest (21 May) and had to be shut down during high water in late May and early June. Once the water levels had subsided, the fishwheels operated almost continuously until early September (98-100% of the time for each of the four fishwheels from 8 June to 2 September; Table A-2). Fishwheels 1 and 2 generally fished at slower speeds (1-3 RPM) than fishwheels 3 and 4 (2-3 RPM).

Catches and Catch Per Unit Effort

A total of 48,267 salmon (46,735 adults; 1,532 jacks) were captured in the fishwheels in 1997 (Table 1). The sockeye salmon catch was the largest (28,756); followed by pink (*O. gorbuscha*; 13,167); chinook (4,004); coho (1,708); steelhead (502); and chum (130). Fishwheel 2 captured the most fish (16,680); followed by fishwheel 1 (11,970); fishwheel 4 (9,956); and fishwheel 3 (9,553).

The CPUE for chinook salmon in fishwheels 1 and 2 showed the majority of the run passing Gitwinksihlkw by the end of June and first few days of July (Fig. 3). Catches at Gitwinksihlkw peaked on 3 July with 122 adults caught in fishwheel 1 and on 30 June for fishwheel 2 (123 fish; Table B-1). The 50% point of the cumulative CPUE occurred on 29 June for both fishwheels 1 and 2. Catches in fishwheels 3 and 4 (Grease Harbour) were higher than the catches in fishwheels 1 and 2 (Fig. 3; Table B-1). The peak catches of adult chinook occurred on 5 July for fishwheels 3 and 4 (143 and 243 fish, respectively).

The CPUE for sockeye salmon in fishwheel 1 was considerably lower than the CPUE for fishwheel 2 (Fig. 4; Table B-2). The CPUE for fishwheel 1 was relatively consistent with several small peaks in July and August; whereas, the CPUE for fishwheel 2 showed a distinct peak at the

end of June (Fig. 4). The peak catch of adult sockeye occurred in fishwheel 2 on 30 June with a catch of 427 fish and a CPUE of 21.3 fish per hour (Table B-2). The 50% point in the cumulative CPUE occurred on 27 July for fishwheel 1, and on 19 July for fishwheel 2. The pattern of CPUE for sockeye salmon versus time was similar for both fishwheels 3 and 4 (Fig. 4). The CPUE for both fishwheels peaked several times from July through to September. Catches in fishwheels 3 and 4 first peaked on 5 July with 246 and 240 fish, respectively (Table B-2).

The CPUE for coho salmon showed several peaks in August in all four fishwheels (Table B-3; Fig. 5). We assumed since the fishwheels stopped fishing in early September that they did not operate through the entire coho run, therefore, the fishwheel catches are only indicative of the early-run and presumably, upper river stocks (Fig. 5). The first adult coho salmon was captured on 24 July (fishwheel 2; Table B-3). The first peaks in catch for the Gitwinksihlkw fishwheels occurred on 16 August for fishwheels 1 and 2 (35 and 56 adults, respectively; Table B-3). The 50% point of the cumulative CPUE occurred on 16 August for both fishwheels 1 and 2.

Peak catches of steelhead occurred at Gitwinksihlkw in fishwheel 1 on 22 August (13) and in fishwheel 2 on 1 September (16; Table B-4). The first peak in catches for Grease Harbour occurred on 22 August in fishwheel 3 (10) and on 1 September in fishwheel 4 (22; Table B-4). Over the entire season, fishwheel 2 captured the most steelhead (192) followed by fishwheel 1 (124), fishwheel 3 (103), and fishwheel 4 (83). As with the coho run, we assumed that the fishwheels did not operate for the entire steelhead run (Fig. 6; Table B-4).

The CPUE for pink salmon showed several peaks in August for all four fishwheels, with fishwheel 2 showing the most distinct CPUE peak on 31 August (Fig. 7). The largest catch occurred on 31 August in fishwheel 2 (506; Table B-5). The first pink salmon was caught on 9 July in fishwheel 2.

The CPUE for chum salmon showed a run timing pattern very similar to that for pink salmon, with the exception that a larger portion of chum catch occurred in early July (Fig. 8). The peak catch of chum salmon (8) occurred on 1 September in fishwheel 2 (Table B-5). The first chum salmon was caught in fishwheel 3 on 4 July (Table B-5).

Catches of non-salmon species (Table B-6) included 294 Dolly Varden (*Salvelinus malma*), 145 whitefish (species not determined), 27 cutthroat trout (*O. clarki*), 23 rainbow trout (*O. mykiss*), and 7 longnose suckers (*Catostomus catostomus*).

A total of 360 adult Pacific lamprey were caught in four fishwheels (Table B-7). The first lamprey was caught on 12 June in fishwheel 1. The largest catch occurred on 6 July in fishwheel 4 (24 lamprey; Table B-7). Fishwheel 4 caught 55% (198 lamprey) of the catch and had the highest cumulative CPUE (8.59; Table B-7).

Fishwheel catches of Pacific salmon smolts included 107 coho, 86 steelhead, 37 sockeye, and 11 chinook smolts (Table B-8). The first smolts were caught in the fishwheels on 21 May,

the first day of operation. Fishwheels 1 and 2 caught over 68% (165 smolts) of the total smolt catch from all four fishwheels.

Tagging

A total of 6,513 sockeye; 2,541 chinook; 1,020 coho salmon; and 394 steelhead were tagged at the fishwheels in 1997 (Table 1). These totals represented 23% of the sockeye, 68% of the chinook, 71% of the coho, and 78% of the steelhead caught in the four fishwheels. The majority of the salmon (90%) were tagged at fishwheels 1 and 2.

Tag Recovery

A total of 4,564 spaghetti and operculum tagged fish were recovered at various locations in the Nass watershed (Table 2). Most of the recoveries were at the Meziadin fishway (3,146); followed by the fishwheels (1,256); and the spawning grounds (162).

Recaptures of tagged fish in the fishwheels indicate that chinook salmon exhibited the greatest time between tagging and subsequent recapture among the three tagged species. Operculum tagged chinook salmon averaged (by fishwheel recapture) 9 to 15 days at large before recapture in one of the fishwheels. The time at large for tagged chinook ranged from 0 to 34 days (n=353) between tagging and subsequent recapture in all four fishwheels (Tables C-1 and C-2; Fig. 9). There was one chinook salmon recovered at the Meziadin fishway 31 days after being tagged at fishwheel 2 (Tables C-1 and C-2). There were other tagged chinook observed at the Meziadin fishway; however, they were not captured (and tag numbers read) in order to avoid handling and delaying the migration of the fish.

Recaptures of tagged sockeye at the fishwheels indicated that sockeye spend considerably less time at large than do tagged chinook (Table C-3; Fig. 10). On average, tagged sockeye were recovered at fishwheels 1 and 2 within 2 days of being tagged, and recaptured in fishwheels 3 and 4 within 5 days (Table C-3). Recoveries of fish tagged in fishwheel 1 showed a similar distribution of time at large to those fish tagged in fishwheel 2 (Fig. 10).

Recaptures of tagged coho at the fishwheels indicate that coho spent slightly more time at large than did tagged sockeye, but averaged less travel time than tagged chinook at fishwheels 1, 2 and 4 (Tables C-1 and C-4). Tagged coho salmon averaged (by fishwheel recapture) 2 to 18 days at large before recapture in the fishwheels. The time at large for tagged coho salmon ranged from 0 to 20 days (n=17) between tagging and subsequent recapture in the Gitwinksihlkw fishwheels (Tables C-1 and C-4). Tagged coho were observed at the Meziadin fishway, but they were not recovered to obtain the tag numbers.

Counts of adult salmon at the Meziadin fishway included 158,656 sockeye; 639 coho; and 486 chinook salmon from 5 July to 29 September 1997 (Tables D-1 and D-2). Sockeye counts at the fishway showed two modes; one peak occurred on 17 July with a count of 10,511 adult sockeye; a second peak occurred 1 September with a count of 5,368 (Fig. 11; Table D-1).

The daily proportion of the sockeye count that was tagged ranged from 0% (late September) to 4.9% (15 August) and averaged 2.0% (Fig. 11; Table D-1).

Of the 3,098 tagged sockeye observed at the Meziadin fishway, 2,228 (72%) were dipnetted out and their tag numbers were recorded (Table D-1). The remainder were simply counted as they passed through the viewing chute. Further description and analysis of the tagged sockeye recoveries at the Meziadin fishway is discussed below (see **Run Reconstruction**).

The peak count of adult coho salmon at the Meziadin fishway was 75 fish on 17 September (Fig. 11; Table D-2). A total of 41 tagged coho salmon were counted at the fishway representing 6.4% of the total count. In the case of chinook salmon, three peaks were observed at the fishway; one was on 19 July, the second peak on 23 July, and the third peak on 29 July, of which all dates had 22 chinook counted (Table D-2). A total of 47 tagged chinook salmon were counted at the fishway representing 9.7% of the total count (Table D-2).

Escapement Estimates

In-season Escapement Estimates

From late June to late August, sockeye escapement estimates were generated daily and provided to the Department of Fisheries and Oceans in Prince Rupert at least three times per week (Table D-3). Prior to 6 July there were insufficient tag recoveries (< 12) to derive a reliable mark-recapture estimate, and escapement estimates were based on the expansion factors for fishwheels 1 and 2.

Post-season Escapement Estimates

For sockeye and coho salmon, a range of post-season Petersen population estimates were calculated assuming that tagged fish were selectively removed from the population at rates of 0% to 30% (Table 3). The sockeye escapement estimates ranged from 233,460 (30% differential removal of tagged fish) to 333,492 (0% removal of tagged fish).

The pooled Petersen coho salmon escapement estimate ranged from 10,861 (30% removal of tagged fish) to 15,509 (0% removal; Table 3). These estimates are based on 637 fish examined and 41 tags recovered from coho salmon at the Meziadin fishway. The tagging of the Nass coho run was incomplete because coho are caught in the Nass River from July to December (i.e., beyond the period when the fishwheels operated at Gitwinksihlkw in 1997, and beyond the time when Meziadin coho move through the lower river). Therefore, these are considered minimum estimates of the Nass coho salmon escapement.

A total of 17 surveys were conducted on 5 different spawning grounds (plus the Meziadin fishway counts) to obtain information to estimate the chinook salmon escapement (Table 4; all chinook data is presented in greater detail in Link and Nass 1999). A total of 1,486 chinook were examined and 165 tags were recovered. The abundance on the spawning grounds (18,702; Table

4) was estimated using Chapman's modified Petersen mark-recapture estimator (Ricker 1975). The population estimate was stratified by size classes because fishwheels can be size selective, with small chinook salmon more vulnerable to capture than large chinook salmon (Link and Nass 1999).

The proportions of the chinook, sockeye, and coho salmon run captured in all the fishwheels, based on the fishwheel catches and mark-recapture derived population estimates above Gitwinksihlkw, were 18.6 %, 10.6 %, and 10.2 %, respectively (Table 5). Fishwheel 2 captured the greatest proportion of the run for all species combined (3.4%), followed by fishwheels 3 and 4 (3.0%) and fishwheel 1 (2.1%).

Run Reconstruction

Analysis of the 2,228 spaghetti tags recovered from sockeye at the Meziadin fishway revealed a positively skewed distribution of travel times with a mode of 17 days, a median of 20 days and a mean of 21 days (Fig. 12a; Tables 6 and C-3). The tag recovery data indicate an average speed from the fishwheels to the fishway of 7.2 km per day with a maximum speed of 21.5 km per day (i.e., fish with a 7 day travel time). Unlike previous years of the fishwheel program, the mean travel times for tagged sockeye salmon to travel from the fishwheels to the Meziadin fishway (by tagging period) increased in August, presumably caused by an early August rise in Nass River discharge (Fig. 12b and Fig. A-1). In the past, travel times revealed a pattern of decreasing travel times (increasing migration speed) throughout th e season.

The reconstructed sockeye salmon abundance at Gitwinksihlkw indicated that the estimated daily efficiency of the two Gitwinksihlkw fishwheels (1 and 2) did not show a consistent trend throughout the season (Fig. 13). However, the efficiency of the two fishwheels appeared to co-vary with generally higher efficiencies in early July and mid-to-late August than at other times. The fishwheel efficiency did not appear to be correlated with the abundance (Fig. 13), suggesting density-independent catchability (fishwheel efficiency).

Moderate water levels in July and late August appeared to produce the highest fishwheel efficiencies, while very high (June) and low (early August) water levels resulted in lower fishwheel efficiencies (Fig. 14). Caution should be used in interpreting these data because the high estimated efficiencies in late August are based on a relatively small number of fish recovered.

Age and Length Sampling

The majority of the chinook salmon that returned to the Nass River in 1997 were five year old fish (46.1%) that left freshwater during their second year of life (5_2) based on chinook sampled at the fishwheels and weighted using the CPUE in the Gitwinksihlkw fishwheels (Table 7). The other significant age classes were 4_2 (41.4%) and 6_2 (11.8%). The chinook salmon age and length data are presented in Table E-1 and summarized in Tables 7 and 8. Ages could not be determined for 22% of the chinook salmon sampled (Table E-1).

Fifty two percent of the sockeye salmon that returned to the Nass River in 1997 were five year old fish (brood year 1992, Table 7) and 35% were four year old fish (brood year 1993). The sockeye salmon age and length data are presented in Table E-2 and summarized in Tables E-3, E-4, 7 and 8. Ages could not be determined for 11% of the sockeye salmon sampled (Table E-2). The proportion of the sockeye run composed of 4_2 fish peaked in week 28, whereas the five year old fish dominated the run later in the season (Fig. 15)

The age composition of coho salmon that returned to the Nass in 1997 was split 65:35 between age-3 and age-4 fish. There was one age-5_4 coho salmon that returned to the Nass in 1997 (Tables E-5, 7 and 8). Ages could not be determined for 30% of the coho salmon sampled (Table E-5).

DISCUSSION

Operational Evaluation

As in previous years, fishwheel 1 continued to provide the most consistent fishing effort throughout the entire season, fishing well from early June to early September (Fig. 2). Although fishwheel 2 fished well through June and July and parts of August, low water levels in August affected its speed (average 1.5 RPM; Table A-2) and operation. Due to an apparent funneling effect at the entrance to the Gitwinksihlkw canyon at moderate water levels (typically encountered in August and September), fishwheel 1 actually increases in speed at these lower water levels while fishwheel 2 begins to fish very slowly or stops entirely (Fig. 2). The compensating effects of the two Gitwinksihlkw fishwheels (fishwheel 2 does well at high water while fishwheel 1 tends to do better relative to fishwheel 2 at lower water) over the last few years suggests that both are necessary to adequately cover the entire chinook and sockeye runs. Fishwheels 3 and 4 began fishing in late June, with fishwheel 4 having the most uniform speed (RPM) compared to the other fishwheels (Fig. 2).

Escapement Estimates

The in-season escapement estimation method for sockeye worked well once sufficient recoveries (> 12) were obtained from the Grease Harbour fishwheels. Reliable mark-recapture estimates were not available until about 6 July (Table D-3).

Whether the assumptions of the Petersen estimation procedure are valid for the mark-recapture estimates derived from the fishwheel program has been discussed extensively in previous reports (Link et al. 1996, Link and English 1996, 1997, Link 1999). These authors concluded that some differential loss of tagged fish likely occurred, primarily due to handling effects and selective removal from the Nisga'a Fishery. The bias from this loss would result in an overestimate of the escapement if one assumed that tagged and non-tagged fish had equal survival. We used a differential removal rate of 20% for sockeye salmon and a rate of 10% for coho salmon to derive population estimates for 1997 (Link 1999).

Summary of Final Escapement Estimates

The estimated chinook salmon harvest in the Nisga'a fishery in 1997 was 6,705 (Nass and Blakley 1998) and the estimated sport fishery harvest was 328 (Link and Nass 1999). Using estimates of the Nisga'a harvest above Gitwinksihlkw (B. Nass, LGL Limited, Sidney, BC, unpublished data), Gitanyow harvest (41), and the sport fishery harvests, the net chinook escapement in 1997 was estimated to be 18,702 (Table 9). The estimate of the total return of chinook salmon to the Nass River in 1997 (after ocean fishery harvests) was 25,776 (Table 9).

Using the same method as for the net chinook escapement, the net sockeye escapement in 1997 was estimated to be 250,456 (Table 9). A minimum estimate of the Nass River coho escapement was 13,830, based on the fishwheel operation period (Table 9). The estimated total escapement (after commercial harvests) to the Nass River for sockeye (287,242) and coho (14,253) was derived by adding in-river harvests below the fishwheels to the mark-recapture population estimates above the fishwheels (Table 9).

Based on the Meziadin fishway count of sockeye salmon and the system-wide escapement estimate, the Meziadin stock comprised 59.5% of the Nass sockeye escapement in 1997. The tag-based estimate of the proportion of the Nass escapement bound for the Meziadin fishway was 5.8% smaller than the estimate derived from the traditional scale-based method (65.2%; Todd and Dickson 1970; L. Jantz, Department of Fisheries and Oceans, Prince Rupert, pers. comm.; Table 10).

Fishwheels as a Test Fishery

The inter-annual variability of the efficiency or catchability (q) of the Nass River fishwheels still appears very low compared with the historical variability in the catchability of the Monkley Dump test fishery (Link et al. 1996; Link and English 1996, 1997; Link and Gurak 1997, Link 1999). Similar to 1995, the fishwheel catchability at Gitwinksihlkw did not appear to be related to abundance, but rather to be influenced by the absolute water level of the Nass River (Figs. 13 and 14). In the future, emphasis should be put on quantifying the influence of water level on the efficiency of the fishwheels. Using water-level data, it may be possible to improve in-season estimates of q in a more timely manner than waiting for tag recapture data from Grease Harbour. Finally, in order to continue assessing the in-season variation in the catchability of the fishwheels, the tagging and mark-recapture program should remain an integral component of the fishwheel program.

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TABLES

Table 1. Numbers of each species of salmon caught and tagged at four fishwheels on the Nass River, 1997.

	Fishwheel 1			Fishwheel 2			Fishwheel 3			Fishwheel 4			All fishwheels combined		
	Catch			Catch			Catch			Catch			Catch		
Species	Adults	Jacks	Tagged	Adults	Jacks	Tagged	Adults	Jacks	Tagged	Adults	Jacks	Tagged	Adults	Jacks	Tagged
Chinook	1,054	96	854	1,233	65	1,028	664	56	374	785	51	285	3,736	268	2,541
Sockeye	4,719	250	2,163	8,676	323	4,350	7,359	160	0	7,008	261	0	27,762	994	6,513
Coho	539	92	396	347	57	291	225	61	129	327	60	204	1,438	270	1,020
Steelhead	124	0	97	192	0	151	103	0	78	83	0	68	502	0	394
Pink	5,081	0	0	5,774	0	0	928	0	0	1,384	0	0	13,167	0	0
Chum	42	0	0	54	0	0	22	0	0	12	0	0	130	0	0
Total	11,559	438	3,510	16,276	445	5,820	9,301	277	581	9,599	372	557	46,735	1,532	10,468

Table 2. A summary of the number of tag recoveries by location for the tags applied at the Nass fishwheels, 1997.

Species	Number of fish tagged	Location				Percent recovered
		Meziadin fishway[a]	Spawning grounds	Fishwheels[b]	Total	
Chinook	2,541	7	162	472	641	25.2
Sockeye	6,513	3,098	0	609	3,707	56.9
Coho	1,020	41	0	147	188	18.4
Steelhead	32	0	0	28	28	87.5
Totals	10,106	3,146	162	1,256	4,564	45.2

[a] Includes all tagged fish observed but not necessarily recovered.

[b] These fish were released back to the river so some of them may have been subsequently counted or recovered in the fishwheels or elsewhere.

Table 3. Population estimates derived from tagging of adult sockeye and coho salmon at the Nass River fishwheels and recovery of tags at the Meziadin fishway, 1997. The best estimates are in italics.

	Sockeye	Coho
Number tagged	6,513	1,020
Number fish examined for tags	158,656	637
Number of tagged fish observed	3,098	41
Pooled Petersen Population estimates (at Gitwinksilkw (sockeye) and Grease Harbour (coho))		
Assumed rate of differential tag removal		
0%	333,492	15,509
10%	300,148	*13,960*
20%	*266,804*	12,411
30%	233,460	10,861
Bounds for Petersen estimate - No differential tag loss		
Lower 95 % CL	321,957	11,504
Upper 95 % CL	345,440	20,866
Bounds for Petersen estimate - 10% differential tag removal		
Lower 95 % CL	289,766	*10,355*
Upper 95 % CL	310,902	*18,782*
Bounds for Petersen estimate - 20% differential tag removal		
Lower 95 % CL	*257,575*	8,964
Upper 95 % CL	*276,363*	16,259

Table 4. Summary of escapement survey data and estimated escapement for chinook salmon, 1997.

System	No. of surveys	No. of fish examined for marks	No. of tags	Percent marked (tags/examined)
Bell-Irving				
Teigen Creek	1	9	2	22.2
Oweegee River	2	52	6	11.5
Cranberry	7	73	4	5.4
Kwinageese	3	576	69	12.0
Damdochax	4	480	48	10.0
Meziadin[a]	fishway count	296	36	12.2
Totals	17	1,486	165	11.1

Total tags applied:	2,541
Correct tag total:	2,168[b]
Total fish examined:	1,486
Total tags recovered:	165
Adjusted net spawning escapement estimate:	18,702[c]
Lower 95 % C.I.:	16,378[c]
Upper 95 % C.I.:	22,080[c]

[a] Meziadin fishway chinook was adjusted per Link and Nass (1999).

[b] Adjusted for tag removals for sport fisheries (14), Nisga'a fisheries (232), and mortalities (5 % of total tagged; 127; from Link and Nass 1999).

[c] Mark recapture and bootstrap estimates from Link and Nass (1999).

Table 5. The estimated percentages of adult chinook, sockeye, and coho captured with four fishwheels on the Nass River, 1997. The percentages were derived using the Petersen escapement estimates and 95% confidence intervals (Table 3 and Link and Nass 1998). The estimated abundance past fishwheels 3 and 4 was determined by subtracting the estimated fishery harvests above Gitwinksihlkw from the estimated escapement above Gitwinksihlkw. The percentages from each fishwheel (point estimate, lower and upper) were summed to estimate the "all fishwheels" percentages.

	Fishwheel 1			Fishwheel 2			Fishwheel 3			Fishwheel 4			All fishwheels		
		Range			Range			Range			Range			Range	
Species	Percent	Lower	Upper	Percent	Lower	Upper	Percent	Lower	Upper	Percent	Lower	Upper	Percent	Lower	Upper
Sockeye	1.8	1.7	1.8	3.3	3.1	3.4	2.9	2.8	3.0	2.7	2.6	2.8	10.6	10.3	11.0
Chinook	5.1	4.8	6.4	5.9	5.6	7.5	3.5	3.3	4.5	4.1	3.9	5.4	18.6	17.5	23.9
Coho	3.8	2.9	5.2	2.5	1.8	3.4	1.6	1.2	2.2	2.3	1.8	3.2	10.2	7.7	14.0
Total, all spp.	2.1	2.0	2.2	3.4	3.2	3.6	2.9	2.7	3.0	2.8	2.7	3.0	11.2	10.6	11.9

Table 6. Means, standard errors and 95% confidence intervals for sockeye travel times from the fishwheels to the Meziadin fishway for 3-day release periods, 1997.

Release periods	Number of recoveries	Mean travel time (d)	Standard error	95 % Confidence Interval	
				Lower	Upper
Period ending date					
10-Jun	1	40.0	0.00	40.0	40.0
13-Jun	4	29.5	2.02	25.5	33.5
16-Jun	5	28.4	1.21	26.0	30.8
19-Jun	5	28.2	1.07	26.1	30.3
22-Jun	8	25.3	0.37	24.5	26.0
25-Jun	19	23.5	0.84	21.8	25.1
28-Jun	29	20.2	0.53	19.1	21.3
01-Jul	114	19.1	0.36	18.4	19.8
04-Jul	148	20.2	0.44	19.3	21.1
07-Jul	89	19.5	0.46	18.6	20.5
10-Jul	197	17.8	0.40	17.0	18.6
13-Jul	140	19.1	0.48	18.1	20.1
16-Jul	87	18.8	0.72	17.4	20.2
19-Jul	116	18.3	0.55	17.2	19.4
22-Jul	90	19.3	0.85	17.6	21.0
25-Jul	148	17.8	0.58	16.7	19.0
28-Jul	86	22.2	0.83	20.6	23.9
31-Jul	92	21.6	0.96	19.7	23.5
03-Aug	106	25.4	0.70	24.0	26.8
06-Aug	132	28.4	0.63	27.1	29.7
09-Aug	90	25.2	0.63	24.0	26.5
12-Aug	121	25.6	0.47	24.6	26.5
15-Aug	63	23.1	0.62	21.9	24.4
18-Aug	146	21.0	0.38	20.2	21.7
21-Aug	53	21.2	0.55	20.1	22.3
24-Aug	47	20.3	0.48	19.3	21.3
27-Aug	38	19.6	0.61	18.3	20.8
30-Aug	35	15.4	0.46	14.5	16.3
02-Sep	19	16.7	0.7	15.4	18.0
All periods	2,228	21.0	0.1	20.71	21.3

Table 7. Summary of age composition of chinook, sockeye, and coho salmon sampled at the Nass River fishwheels, 1997. Chinook and coho portions are weighted by weekly Gitwinksihlkw fishwheel CPUE; sockeye composition weighted by the weekly escapement estimates generated by the mark-recapture data. A dash denotes no fish were sampled from that age class. The data underestimate the proportion of chinook under 50 cm nose-fork (32s and 43s) because these fish were not routinely sampled.

	Estimated percent of total run													
	Brood year / Age class													
	1994		1993			1992				1991			1990	1989
Species	31	32	41	42	43	51	52	53	54	62	63	64	72	83
Chinook	-	-	0.2	41.4	-	-	46.1	-	-	11.8	0.3	-	-	0.2
Sockeye	0.4	-	5.2	30.8	-	0.1	20.9	30.8	-	0.3	11.3	0.1	-	-
Coho	-	64.8	-	-	34.9	-	-	-	0.3	-	-	-	-	-

Table 8. Mean nose-fork length (cm) of salmon (by age) sampled at the Nass River fishwheels, 1997.

Species	Age class	Number of fish	Mean length (cm)	Standard deviation (cm)
Sockeye	31	4	55.3	5.6
	41	57	60.7	4.6
	42	399	58.8	4.5
	51	1	57.0	-
	52	284	64.5	4.2
	53	429	62.4	4.0
	62	4	64.0	1.4
	63	166	66.8	4.9
	64	1	65.0	-
Chinook	41	2	75.5	0.7
	42	166	68.4	6.6
	52	212	87.3	6.4
	62	46	96.4	7.2
	63	2	80.0	7.1
	83	1	113.0	-
Coho	32	236	58.4	7.1
	43	130	60.8	6.6
	54	1	72.0	-

Table 9. Summary of estimates of catch and escapement to the Nass River for chinook, sockeye, and coho salmon, 1997.

	Escapement			Catch [d]				
				Nisga'a harvest			Gitanyow [e]	Sport fishery
Species	Total escapement to the Nass River (TE)	Escapement to Gitwinksihlkw (GWE)	Net spawning escapement (NSE)	Below Gitw. (BGW)	Above Gitw. (AGW)	Total	harvest (GFH)	harvest (SFH)
[a]Chinook	25,776	20,813	18,702	4,963	1,742	6,705	41	328
[b]Sockeye	287,242	266,804	250,456	20,438	11,202	31,640	5,146	-
[c]Coho	14,253	14,154	13,830	99	194	293	130	na

[a] TE=GWE+BGW
GWE=NSE+AGW+GFH+SFH
NSE=mark-recapture estimate from spawning surveys (Table 4)

[b] TE=GWE+BGW
GWE=mark-recapture estimate from Meziadin recoveries (Table 3)
NSE=GWE-AGW-GFH

[c] TE=GWE+BGW (partial or incomplete estimate)
GWE=NSE+AGW+GFH (partial or incomplete estimate)
NSE=mark-recapture estimate at Grease Harbour (Table 3) - GFH (partial or incomplete estimate)

[d] Catch includes all harvests from the Nisga'a (Nass and Blakely 1998), Gitanyow (Les Jantz, DFO-Prince Rupert, pers. comm.), and sport (Nass 1998) fisheries.

[e] Gitanyow are a first nation living in the Skeena watershed.

[na] Not available

Table 10. Comparison of stock composition estimates for Nass River sockeye salmon (percent Meziadin) from scale, GSI and tagging methods, 1986-97.

	Percent Meziadin			Differences		
Year	[a]Scale	GSI	[b]Tag	Scale-GSI	Scale-Tag	GSI-tag
1986	61.6	63.5		-1.9		
1987	78.2	57.1		21.0		
1988	85.5	58.5		27.0		
1989	44.5	41.2		3.3		
1990	77.8	71.5		6.3		
1991	92.6	79.9		12.8		
1992	93.3	86.3	81.0	7.0	12.3	5.3
1993	86.5	76.6	73.1	9.9	13.4	3.5
1994	91.2	na	59.0	na	32.2	na
[c]1995	86.2	83.0	76.4	3.2	9.8	6.6
1996	60.9	na	78.3	na	-17.4	na
1997	65.4	na	59.5	na	6.0	na
Average 92-97	80.6	82.0	71.2	6.7	9.4	5.1
All years average	77.0	68.6	71.2	9.8	9.4	5.1

[a] Proportion of Meziadin adult sockeye count (1997: 158,656) to scale estimate (1997: 258,884; Les Jantz, DFO Prince Rupert, pers. com.) less in-river harvest above Gitwinksihlkw (1997: 16,348; Table 9).

[b] Proportion of Meziadin adult sockeye count (1997: 158,656) to fishwheel escapement estimate (1997: 266,884; Table 3). Tagging method assumes initial 20% differential removal of tagged fish due to net fisheries and handling-induced mortality.

[c] GSI method in 1995 includes only 5 late weeks of the run (50% of escapement), the estimate is likely biased high from the season-total percent Meziadin because first sampling week (adjacent to the bulk of the escapement) was only 68% Meziadin whereas late run weeks were composed of 95-100% Meziadin. This pattern suggests that the early-run component was less than the late-run average of 83%.

FIGURES

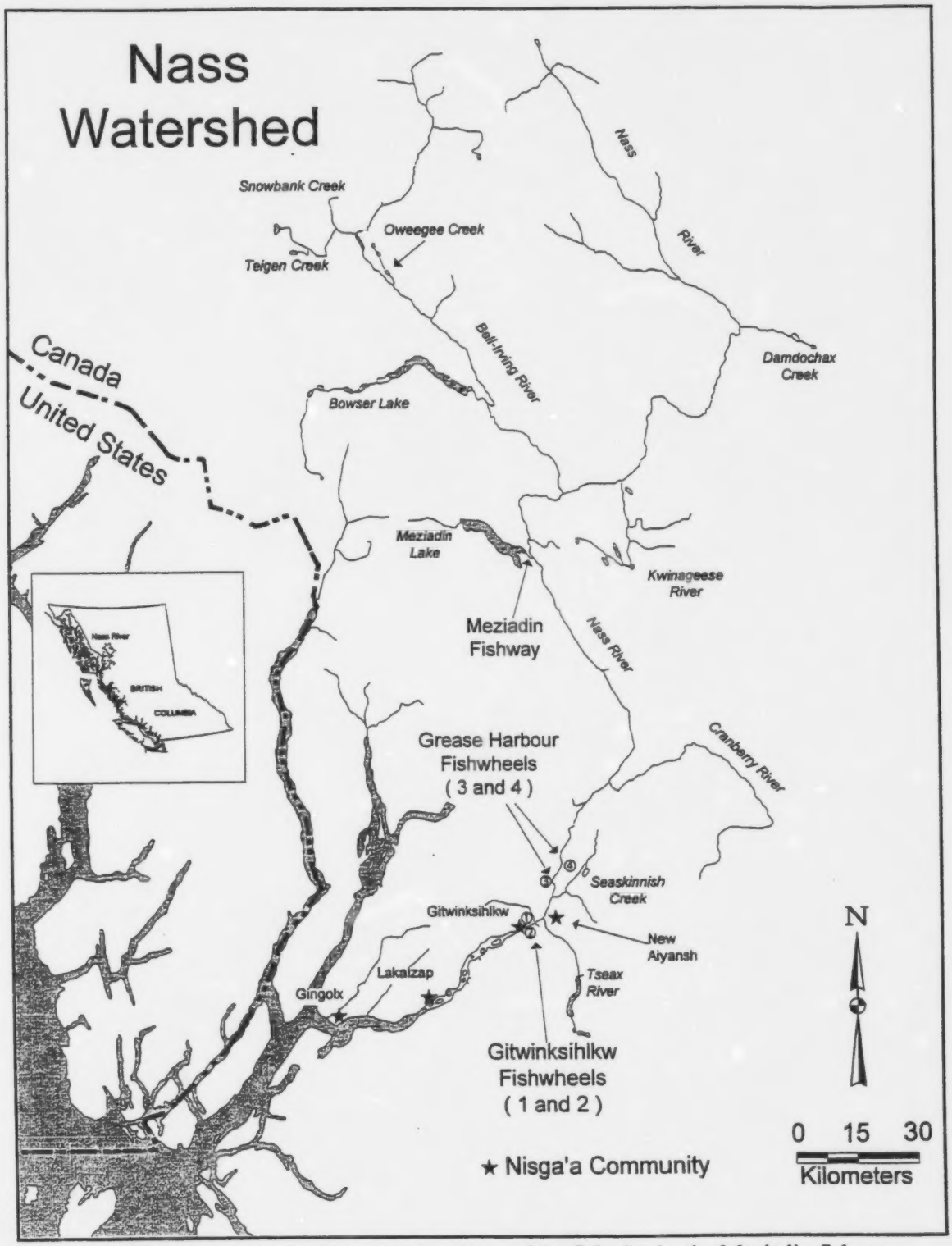

Figure 1. The Nass watershed showing locations of the fishwheels, the Meziadin fishway and chinook spawning areas that were surveyed.

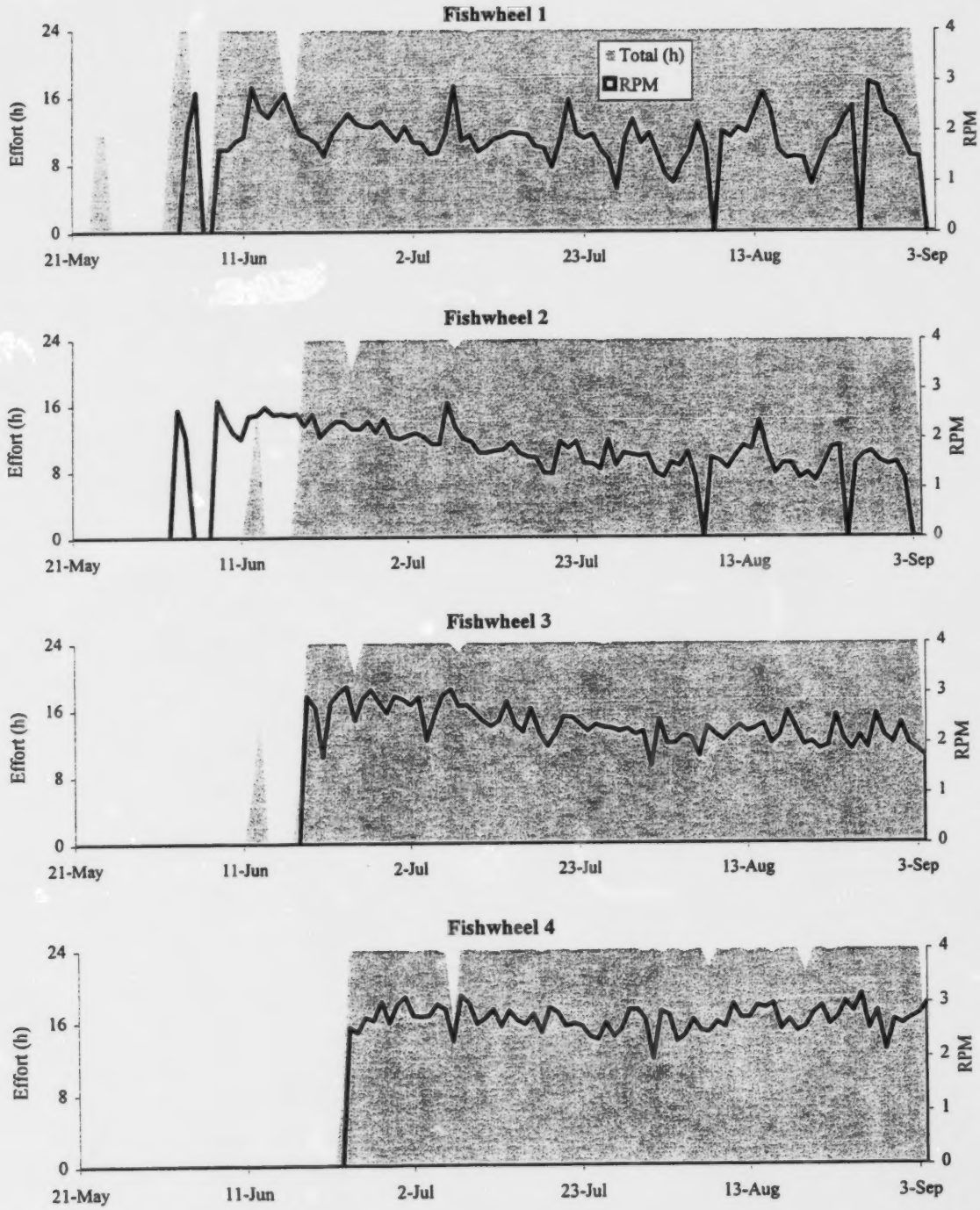

Figure 2. Fishwheel effort (hours) and speed (RPM) for four fishwheels on the Nass River, 1997.

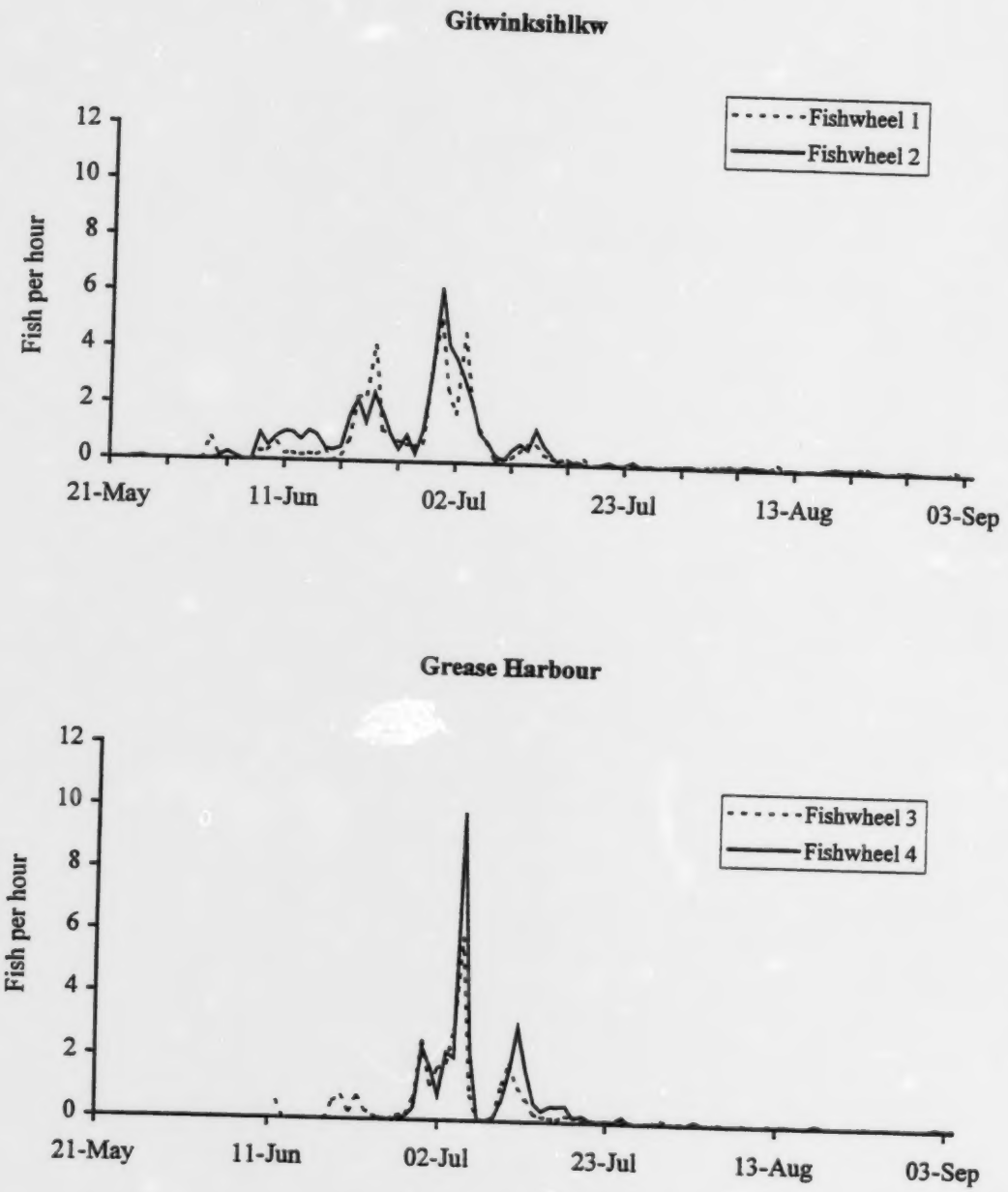

Figure 3. Fishwheel CPUE (catch per wheel hour) for adult chinook salmon captured with four fishwheels on the Nass River, 1997.

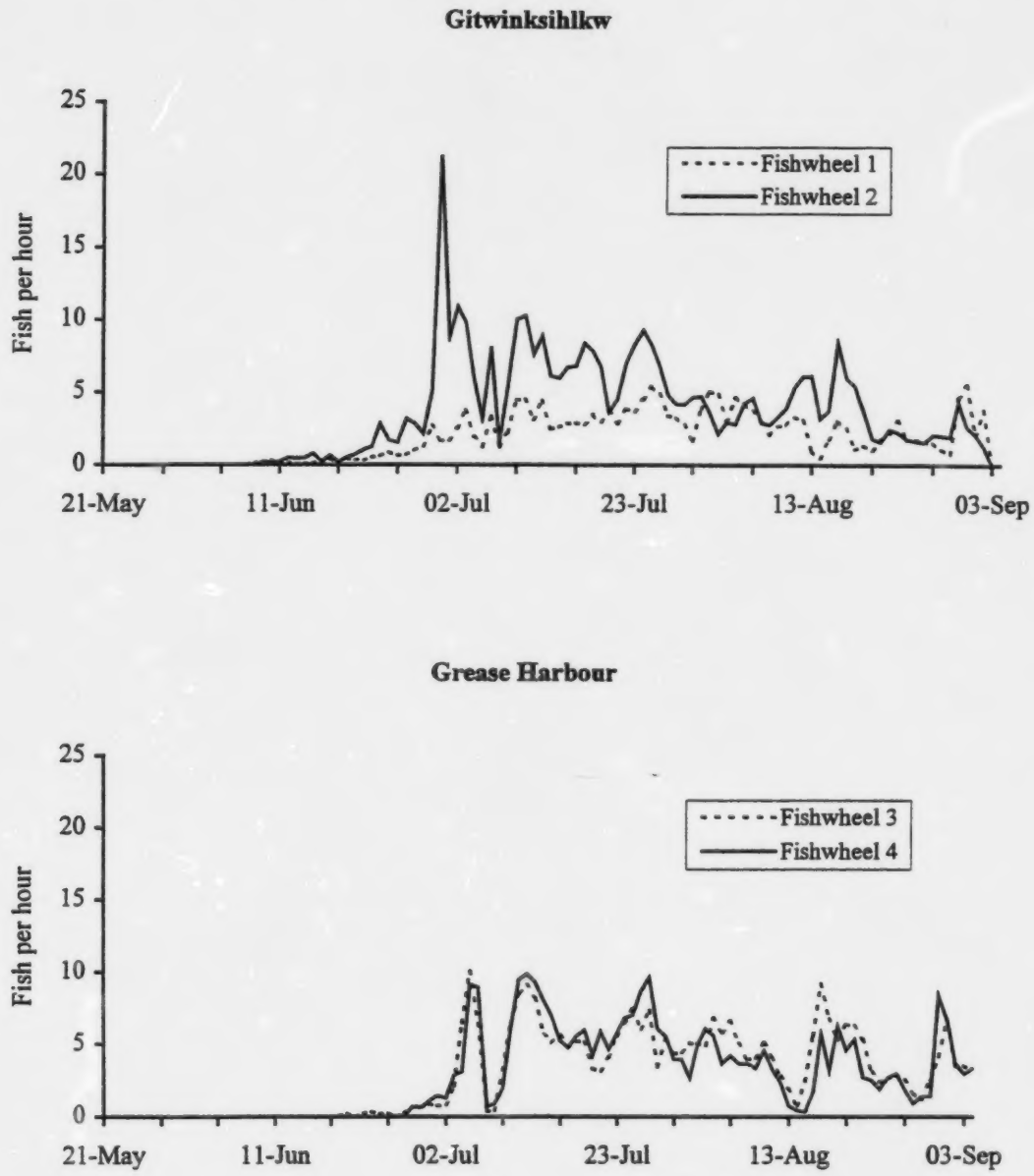

Figure 4. Fishwheel CPUE (catch per wheel hour) for adult sockeye salmon captured with four fishwheels on the Nass River, 1997.

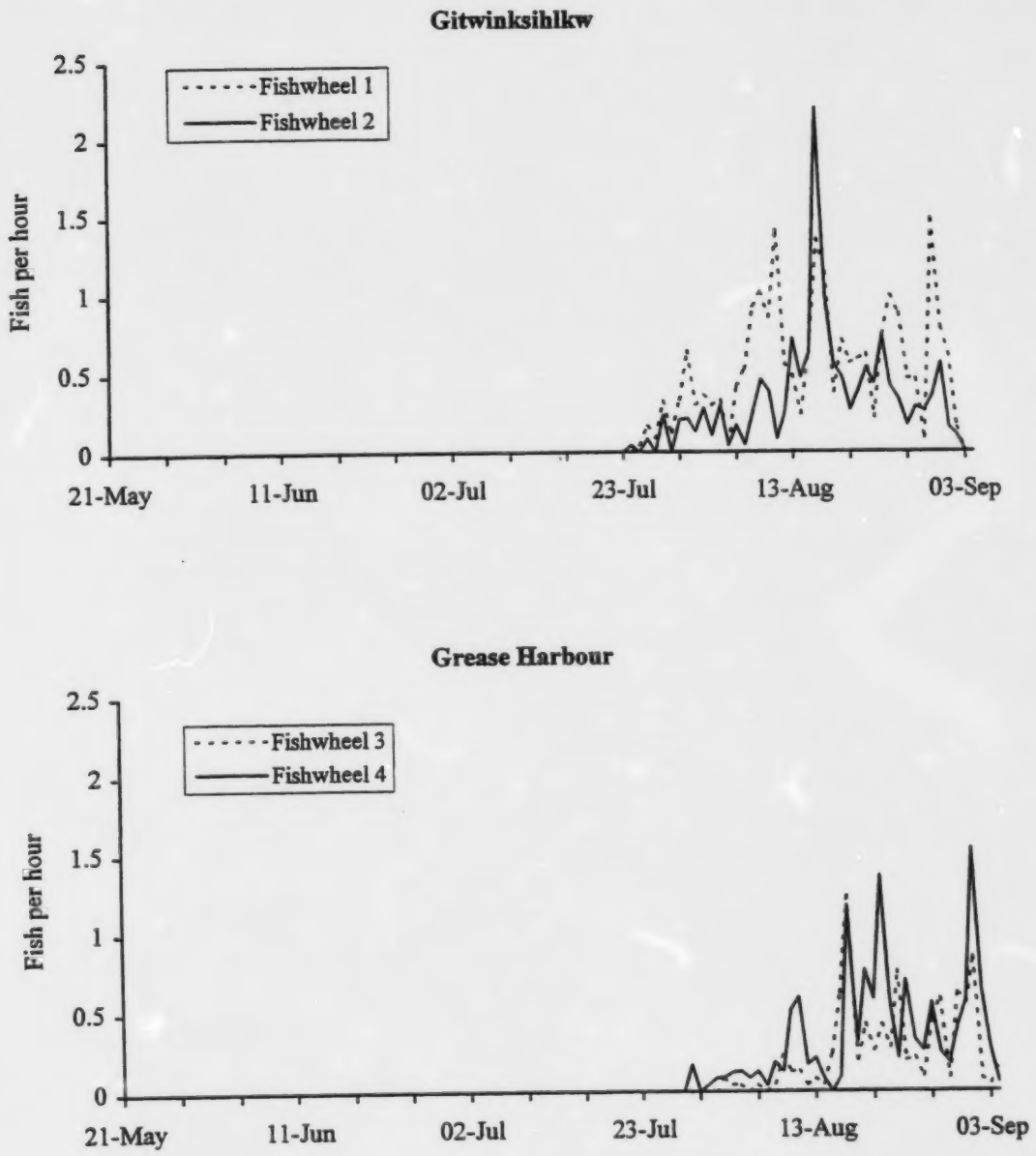

Figure 5. Fishwheel CPUE (catch per wheel hour) for adult coho salmon captured with four fishwheels on the Nass River, 1997.

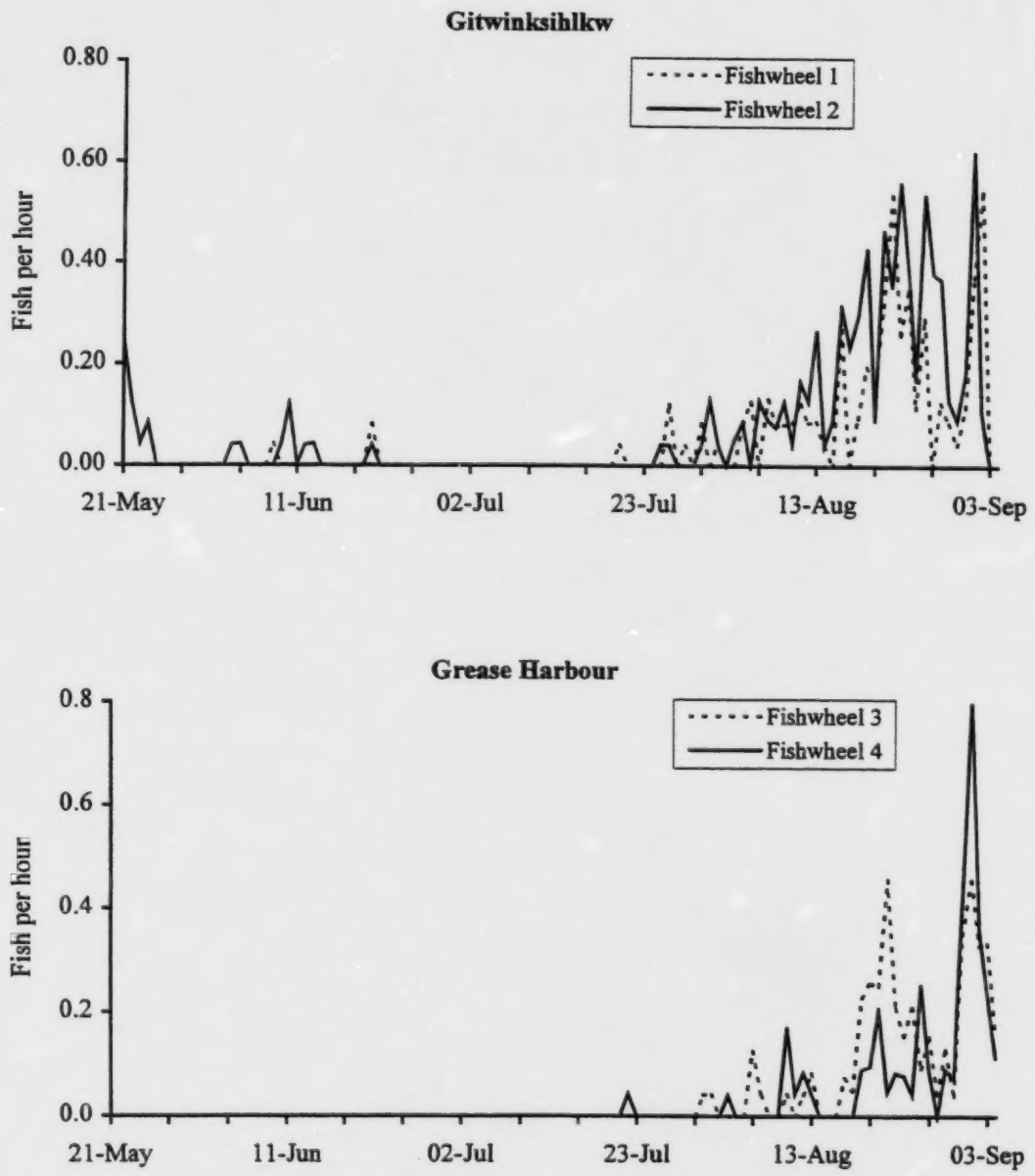

Figure 6. Fishwheel CPUE (catch per wheel hour) for adult steelhead captured with four fishwheels on the Nass River, 1997.

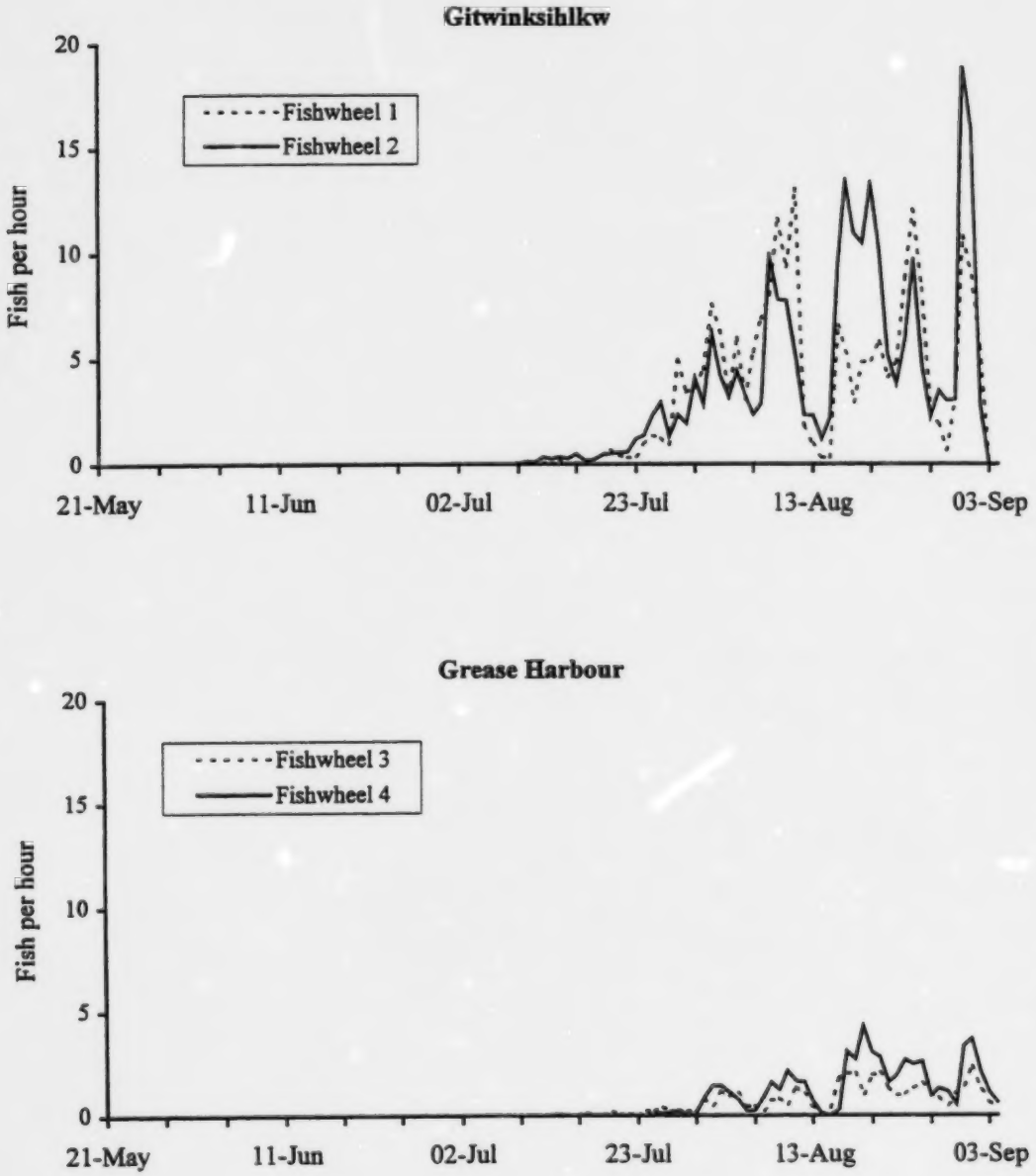

Figure 7. Fishwheel CPUE (catch per wheel hour) for adult pink salmon captured with four fishwheels on the Nass River, 1997.

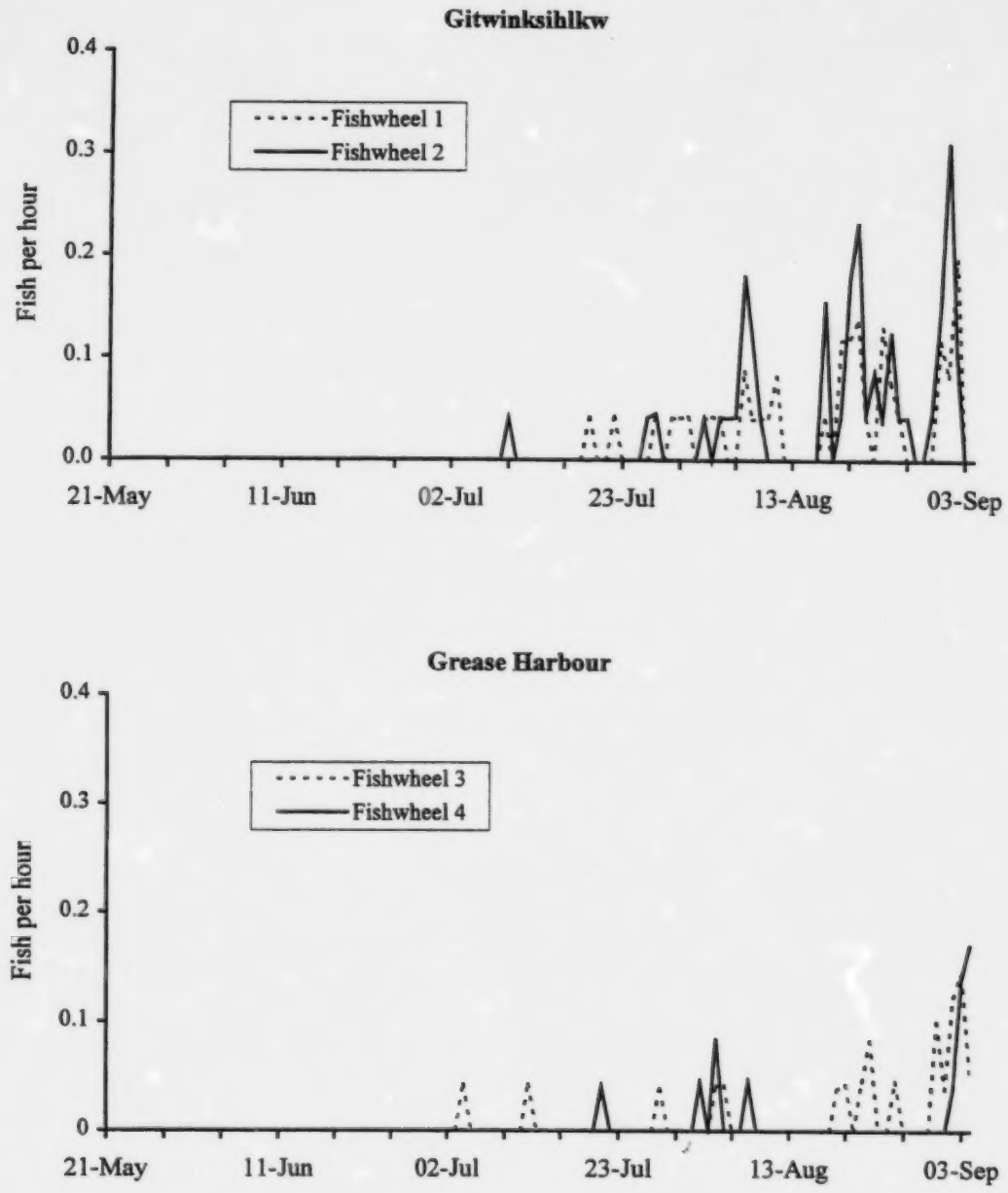

Figure 8. Fishwheel CPUE (catch per wheel hour) for adult chum salmon captured with four fishwheels on the Nass River, 1997.

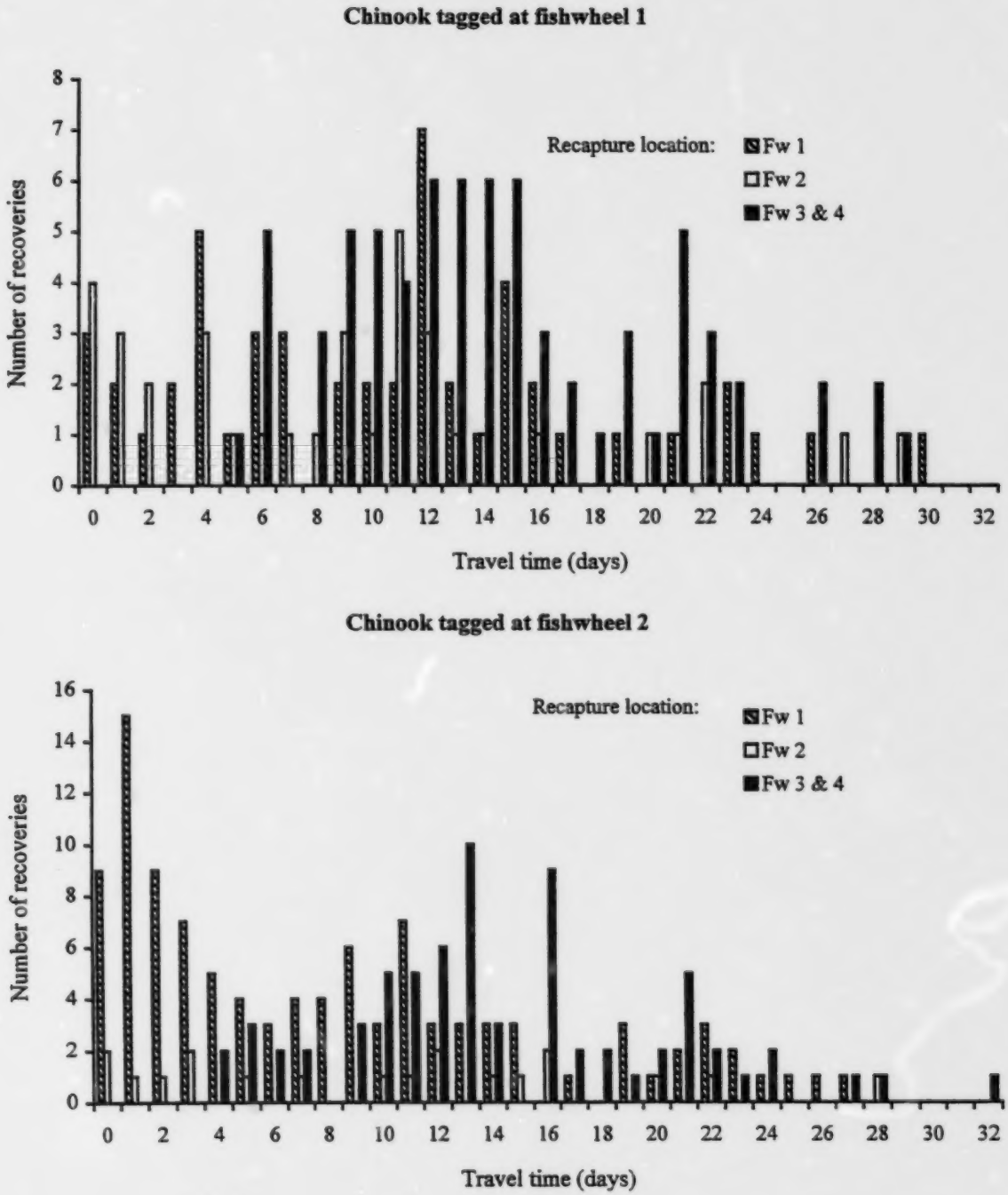

Figure 9. Time between release and recapture for chinook salmon tagged at fishwheels 1 and 2 and subsequently recaptured in each of the four fishwheels, 1997. Fishwheel 3 and 4 were pooled for clarity.

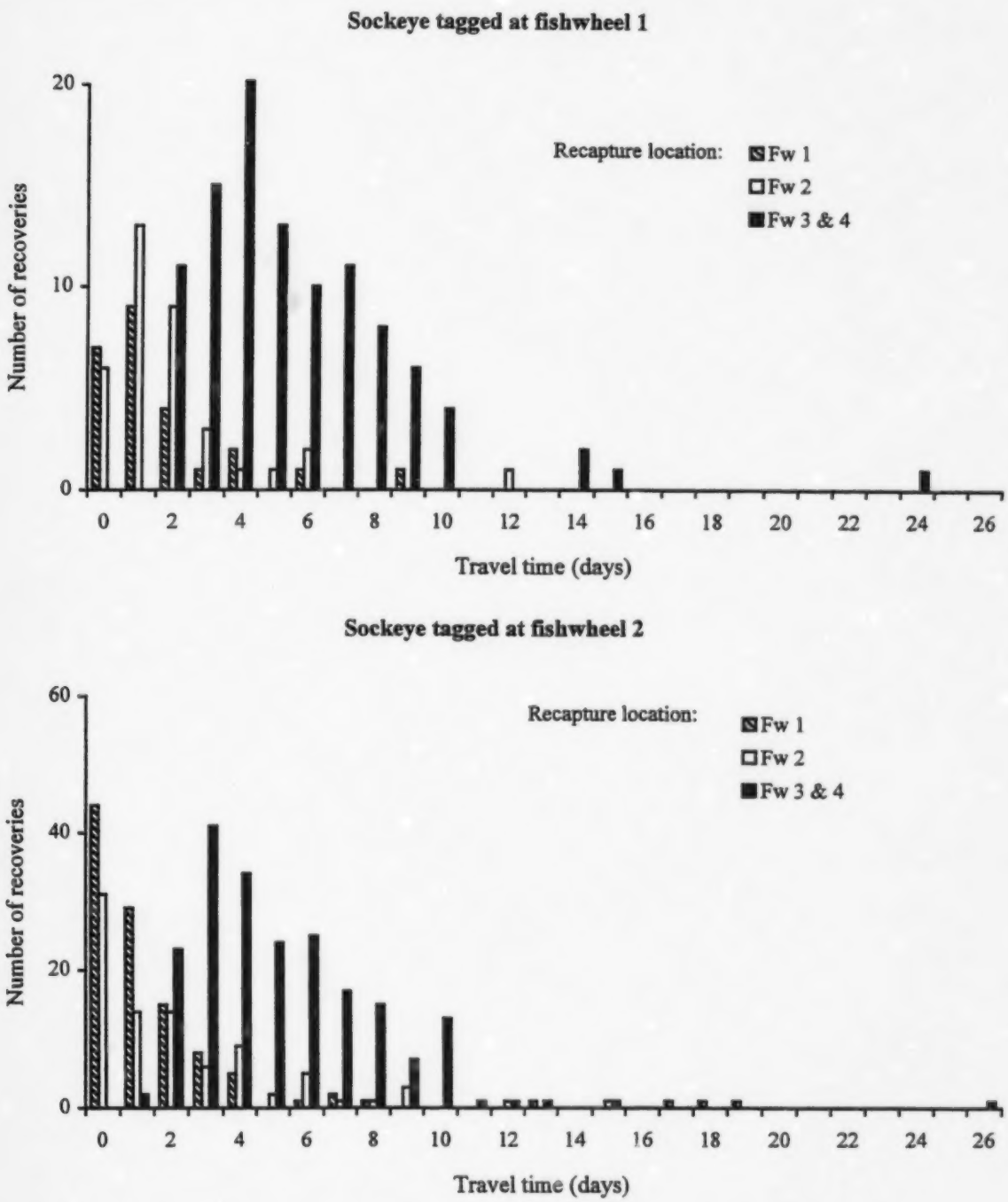

Figure 10. Time between release and recapture for sockeye salmon tagged at fishwheels 1 and 2 and subsequently recaptured in each of the four fishwheels, 1997. Fishwheel 3 and 4 were pooled for clarity.

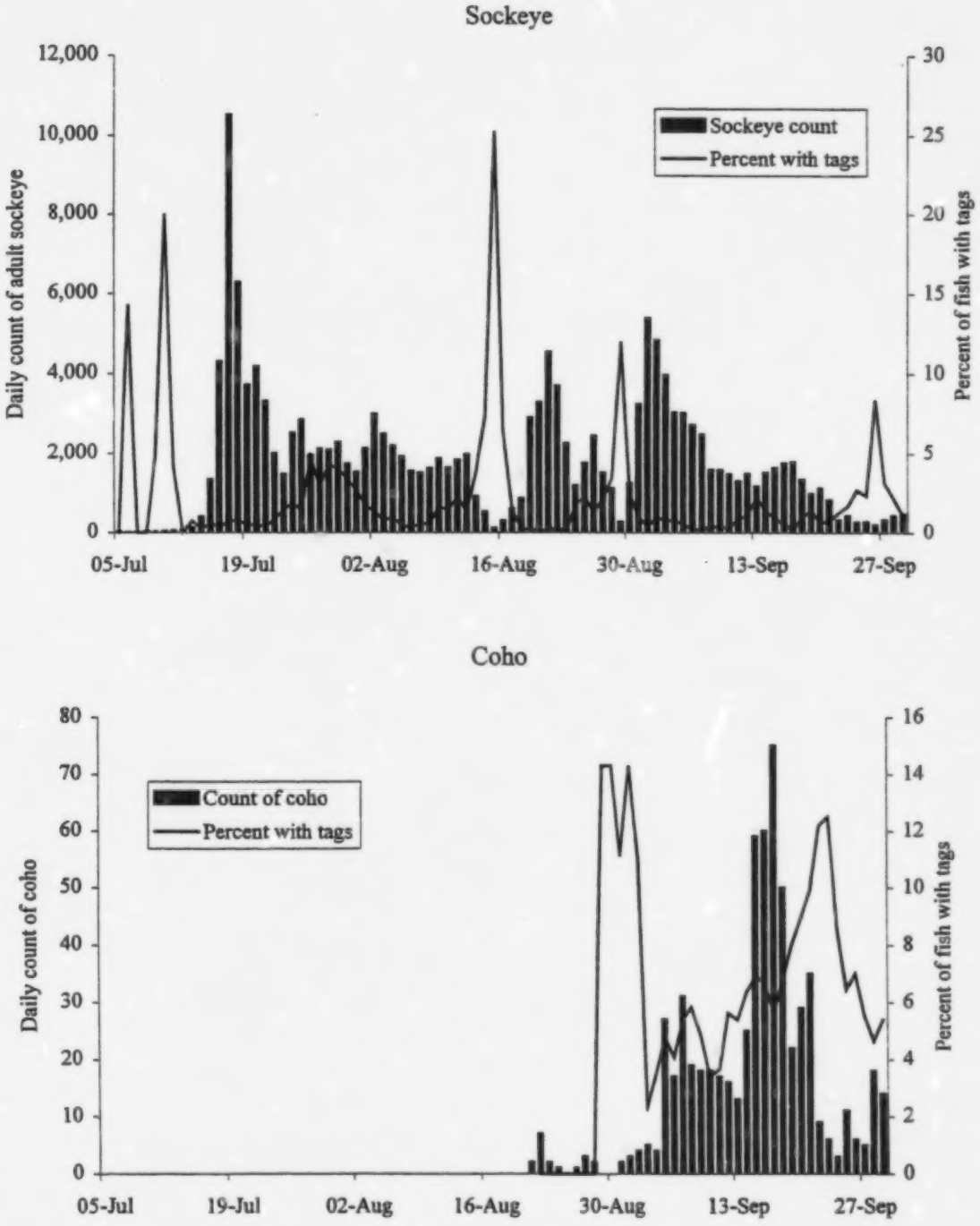

Figure 11. Daily counts and percent of fish with tags for sockeye and coho salmon passing through the Meziadin fishway, 1997. A running 5-day average was used for the percent of coho salmon with tags.

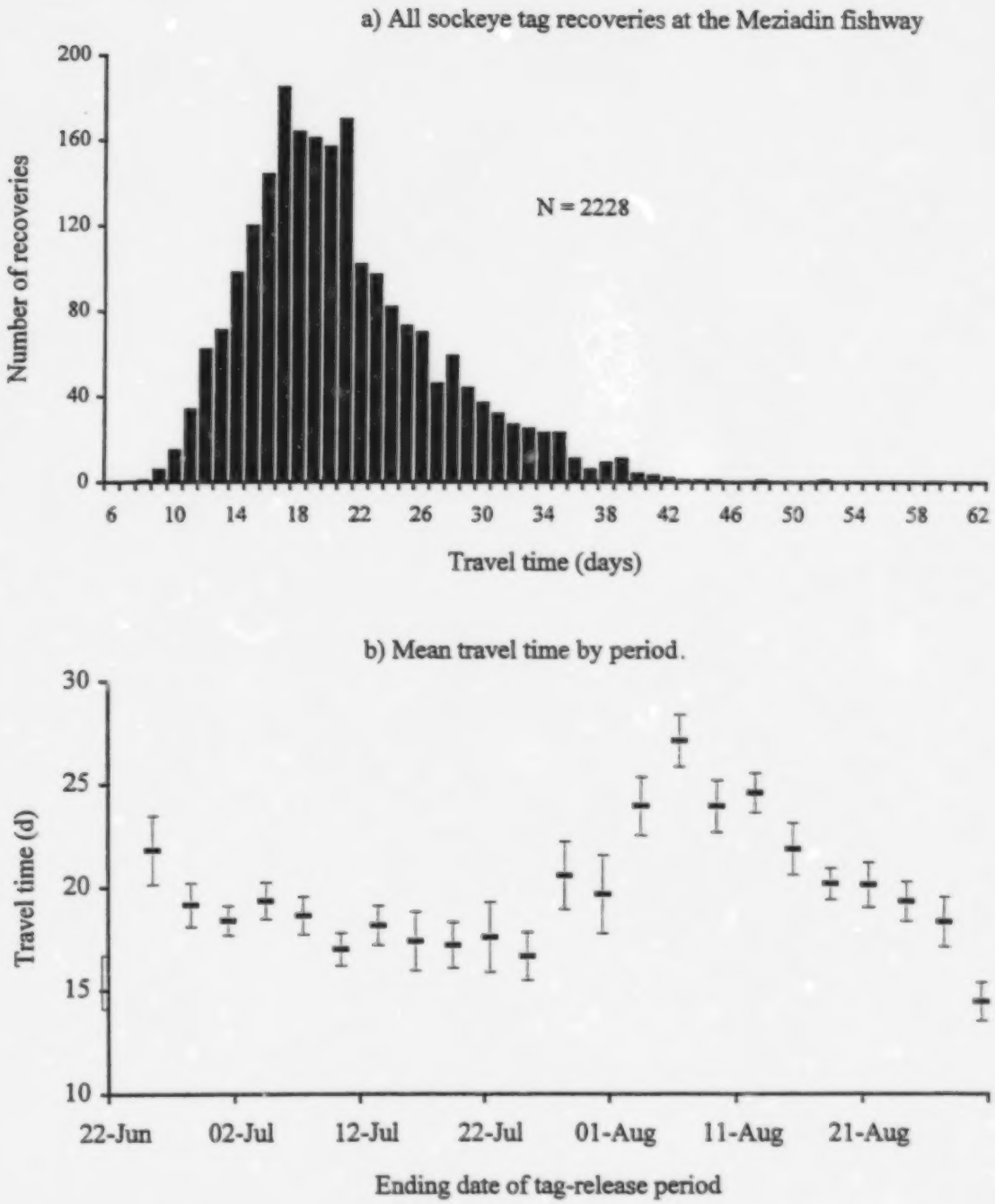

Figure 12. a) The distribution of travel times (days) to the Meziadin fishway for sockeye salmon tagged at the Nass River fishwheels and recovered at the Meziadin fishway, 1997. b) Mean travel time (with 95% confidence intervals) for 3-day release periods.

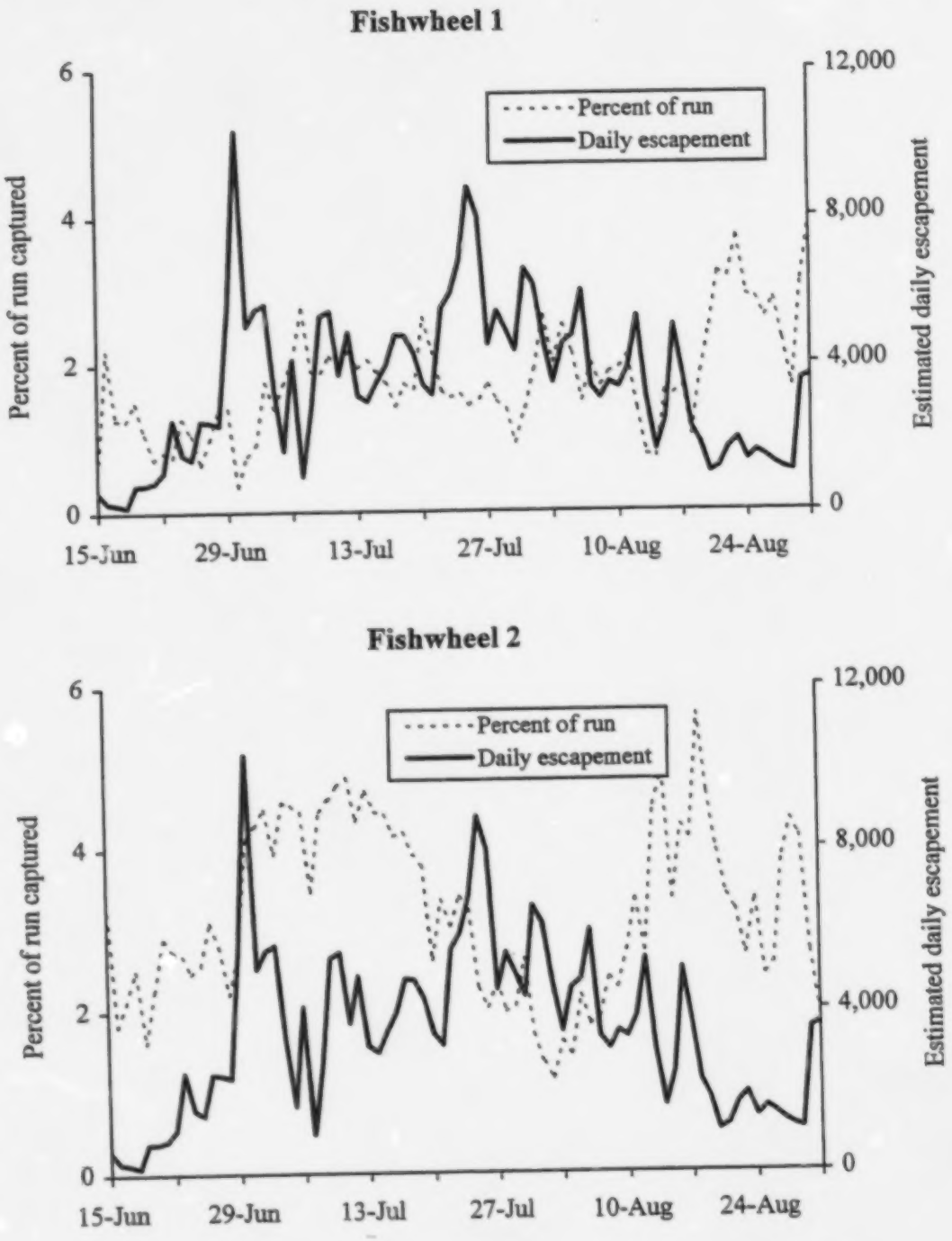

Figure 13. Percent of the sockeye salmon run captured by fishwheels 1 and 2 versus estimated daily escapement, 1997.

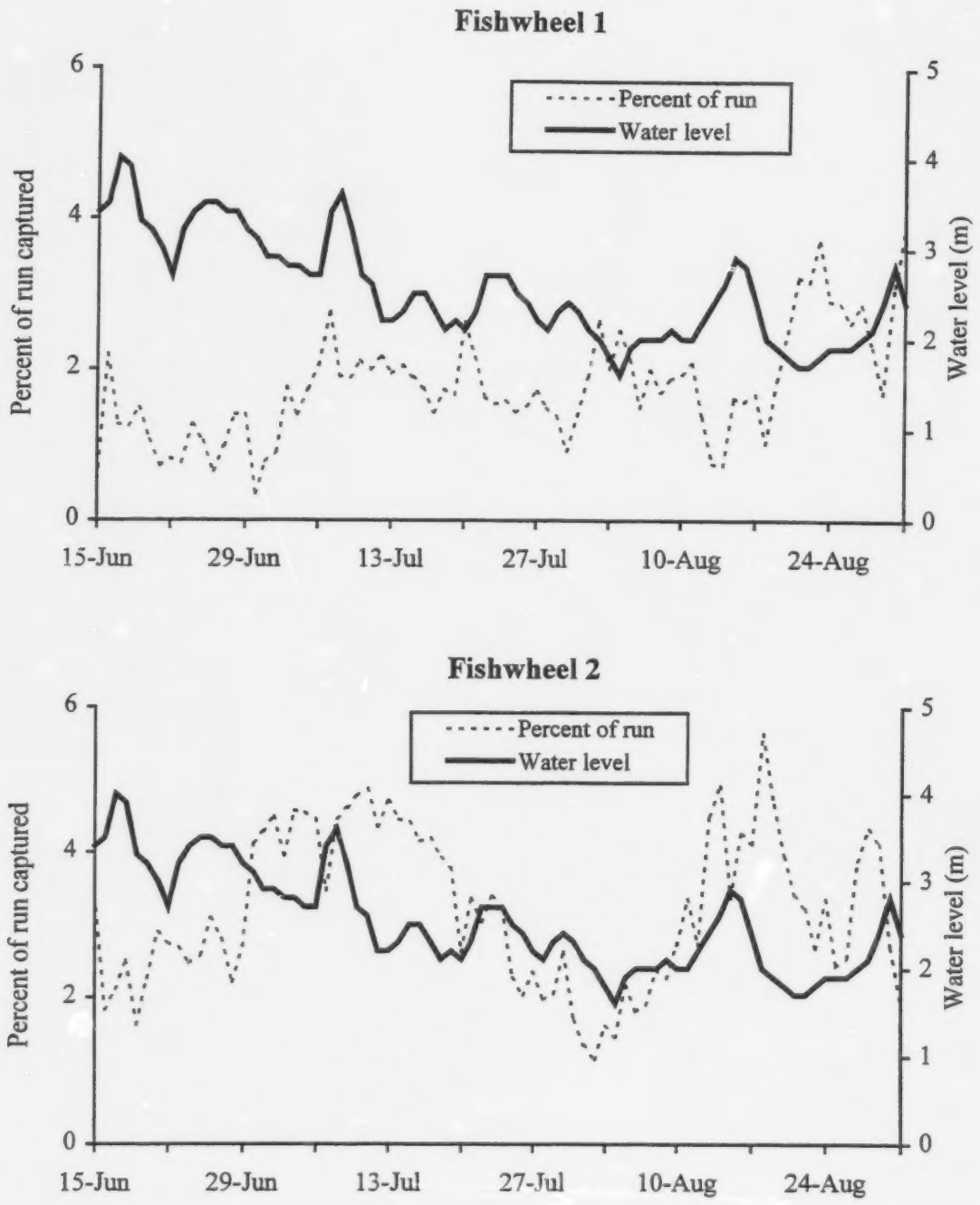

Figure 14. Percent of the sockeye salmon run captured by fishwheels 1 and 2 versus level of the Nass River at Gitwinksihlkw, 1997.

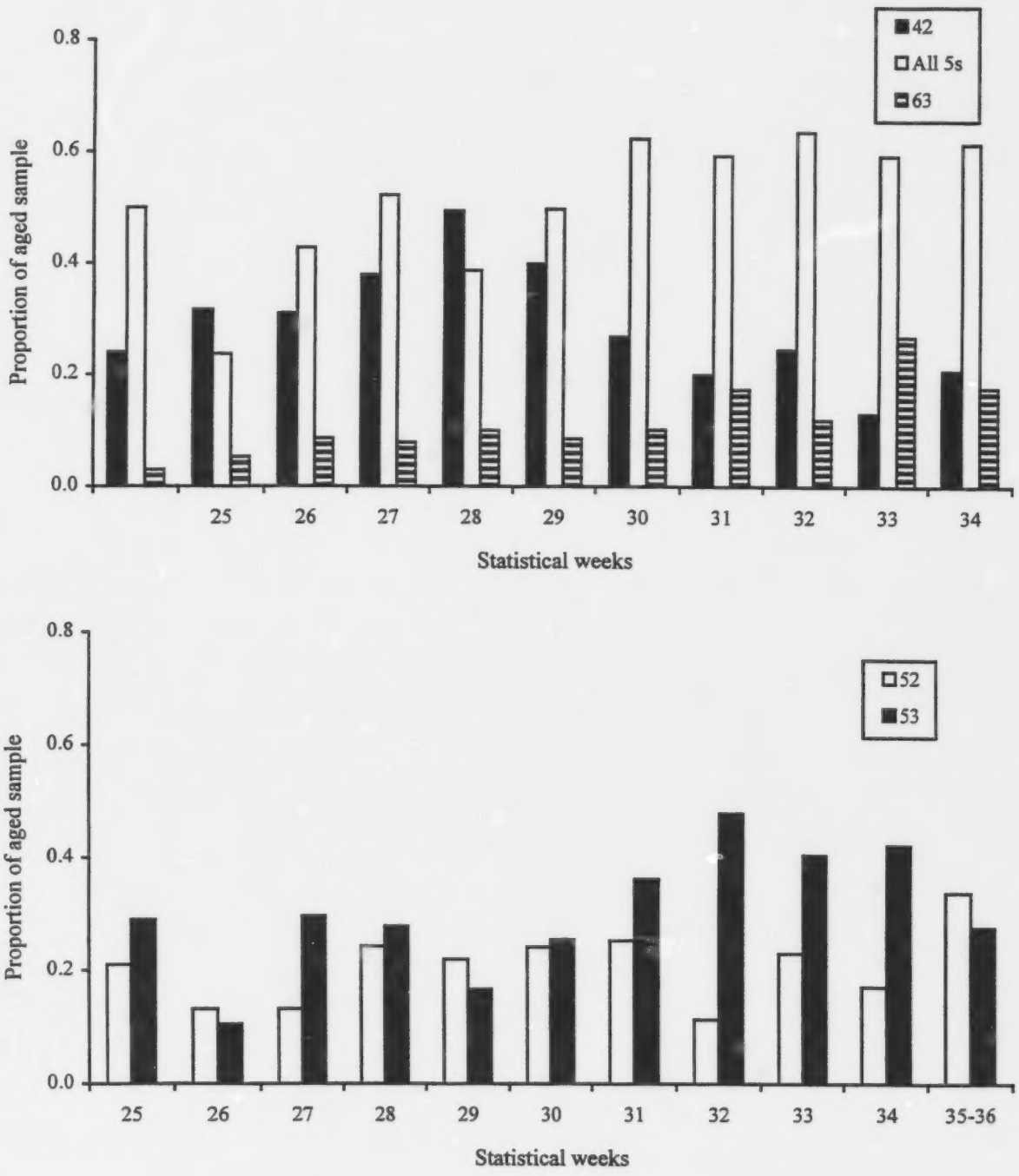

Figure 15. Weekly age composition of successfully aged sockeye salmon sampled from the Nass River fishwheel catch, 1997 (most common ages only, top: the aged-five fish were pooled for clarity).

APPENDIX A

Water temperature/level data and fishwheel effort, 1997

Table A-1. Minimum and maximum water level and temperature data collected in the Nass River near Gitwinksihlkw, 17 May to 16 September 1997.

	Depth (m)		Temp. (°C)			Depth (m)		Temp. (°C)			Depth (m)		Temp. (°C)	
Date	Max.	Min.	Min.	Max.	Date	Max.	Min.	Min.	Max.	Date	Max.	Min.	Min.	Max.
17-May	4.4	4.1	4.7	5.0	29-Jun	3.2	3.0	8.2	9.0	11-Aug	2.0	1.9	10.2	11.1
18-May	4.4	3.5	4.5	5.4	30-Jun	3.1	2.7	8.6	9.4	12-Aug	2.2	2.0	10.4	11.3
19-May	3.6	3.0	5.0	6.3	01-Jul	2.9	2.7	9.2	10.2	13-Aug	2.4	2.1	10.7	11.1
20-May	3.1	2.7	5.8	6.3	02-Jul	2.9	2.7	9.4	10.0	14-Aug	2.6	2.2	10.2	11.1
21-May	2.7	2.5	5.6	6.3	03-Jul	2.8	2.5	9.2	10.2	15-Aug	2.9	2.5	9.8	10.7
22-May	2.7	2.5	5.8	6.7	04-Jul	2.8	2.6	9.4	10.2	16-Aug	2.8	2.4	9.4	10.0
23-May	2.7	2.5	6.0	6.9	05-Jul	2.7	2.4	9.6	10.7	17-Aug	2.4	2.0	9.2	10.0
24-May	2.7	2.5	6.3	7.5	06-Jul	2.7	2.4	10.4	11.5	18-Aug	2.0	1.9	9.4	10.2
25-May	3.3	2.6	6.9	7.8	07-Jul	3.4	2.6	10.7	11.5	19-Aug	1.9	1.7	9.0	10.2
26-May	3.8	3.2	6.7	7.7	08-Jul	3.6	3.2	9.2	10.7	20-Aug	1.8	1.6	9.4	10.2
27-May	3.8	3.6	6.7	7.7	09-Jul	3.2	2.6	9.0	9.6	21-Aug	1.7	1.5	9.6	10.4
28-May	3.8	3.5	6.9	7.5	10-Jul	2.7	2.5	9.2	9.6	22-Aug	1.7	1.5	9.8	10.9
29-May	3.6	3.2	6.5	7.1	11-Jul	2.6	2.1	9.2	10.0	23-Aug	1.8	1.6	9.8	10.4
30-May	3.8	3.3	6.7	7.5	12-Jul	2.2	2.0	9.0	10.0	24-Aug	1.9	1.7	9.4	9.8
31-May	3.9	3.8	6.7	7.5	13-Jul	2.2	2.0	10.0	10.7	25-Aug	1.9	1.8	9.0	9.4
01-Jun	3.9	3.6	7.1	7.8	14-Jul	2.3	2.1	10.4	10.9	26-Aug	1.9	1.7	8.6	9.2
02-Jun	3.8	3.6	6.9	7.5	15-Jul	2.5	2.2	10.2	10.9	27-Aug	2.0	1.7	8.8	9.2
03-Jun	3.8	3.5	6.7	7.3	16-Jul	2.5	2.2	10.4	10.9	28-Aug	2.1	1.9	9.0	9.6
04-Jun	3.6	3.3	6.7	7.3	17-Jul	2.3	2.0	10.2	10.7	29-Aug	2.4	2.0	9.0	9.4
05-Jun	4.0	3.3	6.9	7.3	18-Jul	2.1	1.8	9.8	10.9	30-Aug	2.8	2.3	8.8	9.2
06-Jun	4.3	3.9	6.7	7.1	19-Jul	2.2	2.1	10.2	10.4	31-Aug	2.4	1.9	8.8	9.4
07-Jun	4.2	3.8	6.7	7.1	20-Jul	2.1	1.9	9.8	10.2	01-Sep	1.9	1.5	9.0	9.8
08-Jun	3.9	3.4	6.5	7.3	21-Jul	2.3	1.9	9.6	10.4	02-Sep	1.6	1.4	9.2	9.8
09-Jun	3.4	3.0	6.9	7.8	22-Jul	2.7	2.3	10.0	10.4	03-Sep	1.4	1.3	9.2	9.8
10-Jun	3.0	2.7	7.5	8.0	23-Jul	2.7	2.5	9.4	10.0	04-Sep	1.4	1.3	9.2	9.8
11-Jun	2.8	2.5	7.5	8.2	24-Jul	2.7	2.5	9.4	9.8	05-Sep	1.5	1.3	9.2	9.6
12-Jun	2.9	2.5	8.0	9.2	25-Jul	2.5	2.3	9.2	9.6	06-Sep	1.7	1.5	8.8	9.4
13-Jun	3.4	2.8	8.4	9.0	26-Jul	2.4	2.2	9.4	9.6	07-Sep	1.6	1.2	8.8	9.6
14-Jun	3.5	3.3	7.8	8.4	27-Jul	2.2	2.1	9.2	10.2	08-Sep	1.2	1.0	8.6	9.4
15-Jun	3.4	3.1	7.8	8.0	28-Jul	2.1	1.9	10.0	10.4	09-Sep	1.1	0.9	8.6	9.6
16-Jun	3.5	3.1	7.8	8.2	29-Jul	2.3	1.9	10.0	11.1	10-Sep	1.3	1.1	8.8	9.8
17-Jun	4.0	3.5	7.7	8.4	30-Jul	2.4	2.3	10.4	11.3	11-Sep	1.4	1.2	8.8	9.4
18-Jun	3.9	3.4	8.0	8.6	31-Jul	2.3	2.1	10.4	10.9	12-Sep	1.3	1.0	8.6	9.2
19-Jun	3.3	3.1	8.2	8.6	01-Aug	2.1	1.9	10.0	10.7	13-Sep	1.1	0.9	8.4	9.2
20-Jun	3.2	2.9	8.0	9.0	02-Aug	2.0	1.8	9.8	10.7	14-Sep	0.9	0.8	8.4	9.4
21-Jun	3.0	2.7	8.4	8.8	03-Aug	1.8	1.6	8.4	10.4	15-Sep	0.9	0.7	8.0	8.8
22-Jun	2.7	2.4	8.2	9.0	04-Aug	1.6	1.6	9.8	10.4	16-Sep	0.7	0.6	7.3	8.8
23-Jun	3.2	2.5	8.6	9.6	05-Aug	1.9	1.5	10.2	11.3					
24-Jun	3.4	3.1	9.0	10.0	06-Aug	2.0	1.9	10.4	11.5					
25-Jun	3.5	3.2	9.4	10.2	07-Aug	2.0	1.9	10.2	11.1					
26-Jun	3.5	3.1	9.2	9.8	08-Aug	2.0	1.9	9.8	10.2					
27-Jun	3.4	3.1	9.2	9.6	09-Aug	2.1	1.9	9.6	10.2					
28-Jun	3.4	3.0	8.2	9.2	10-Aug	2.0	1.9	9.8	10.7					

Table A-2. Summary of daily fishwheel effort (hours), effort used to calculate CPUE and fishwheel speed (RPM) for four fishwheels operated on the Nass River, 1997.

	Fishwheel 1			Fishwheel 2			Fishwheel 3			Fishwheel 4		
Date	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM
21-May				10.0	4.0							
22-May				24.0	24.0							
23-May				23.5	23.5							
24-May	11.5			24.0	24.0							
25-May	11.5	23.0		12.0	18.0							
26-May												
27-May												
28-May												
29-May												
30-May												
31-May												
01-Jun												
02-Jun	16.0	4.0		7.0								
03-Jun	24.0	29.2		24.0	24.4	2.6						
04-Jun	24.0	23.3	2.0	24.0	23.4	2.0						
05-Jun	9.0	16.5	2.8	9.5	16.7	0.0						
06-Jun												
07-Jun	7.0											
08-Jun	24.0	23.3	1.6	10.1	5.3	2.8						
09-Jun	24.0	24.2	1.6	24.0	23.7	2.4						
10-Jun	24.0	24.7	1.8	24.0	25.0	2.1						
11-Jun	24.0	23.7	1.9	24.0	22.5	2.0						
12-Jun	24.0	23.9	2.9	24.0	24.8	2.5	6.0	4.0				
13-Jun	24.0	22.7	2.4	24.0	22.8	2.5	16.0	18.0				
14-Jun	24.0	24.4	2.3	24.0	23.3	2.6						
15-Jun	24.0	24.0	2.5	24.0	24.0	2.5						
16-Jun	18.0	25.8	2.7	18.0	25.8	2.5						
17-Jun	14.0	7.3	2.3	14.1	7.7	2.5						
18-Jun	23.7	23.0	1.9	24.0	23.4	2.5	6.8					
19-Jun	23.9	24.9	1.9	24.0	24.7	2.3	24.0	24.8	3.0			
20-Jun	24.0	24.6	1.8	24.0	24.3	2.5	24.0	23.5	2.7			
21-Jun	24.0	22.4	1.5	24.0	23.0	2.0	24.0	23.9	1.7			
22-Jun	24.0	17.3	1.9	24.0	24.3	2.2	24.0	23.5	2.8			
23-Jun	24.0	31.4	2.2	24.0	24.1	2.4	24.0	23.7	3.0	8.2		
24-Jun	24.0	23.2	2.4	24.0	23.3	2.3	24.0	23.8	3.1	24.0	24.5	2.6
25-Jun	24.0	23.8	2.1	24.0	24.4	2.2	20.2	20.7	2.5	24.0	23.7	2.5
26-Jun	24.0	23.5	2.1	24.0	24.1	2.2	24.0	16.0	2.9	24.0	24.0	2.8
27-Jun	24.0	24.2	2.1	24.0	23.8	2.4	24.0	31.9	3.1	24.0	24.8	2.7
28-Jun	24.0	26.2	2.2	24.0	24.8	2.1	24.0	24.0	2.8	24.0	24.4	3.1
29-Jun	24.0	28.7	2.0	24.0	29.0	2.4	24.0	23.8	2.6	24.0	25.5	2.7
30-Jun	24.0	21.7	1.8	24.0	20.0	2.0	24.0	25.1	3.0	24.0	24.0	3.0
01-Jul	24.0	23.0	2.1	24.0	24.6	2.0	24.0	22.9	2.9	24.0	22.5	3.1
02-Jul	24.0	20.0	1.8	23.7	22.7	2.1	24.0	24.7	2.8	23.8	24.6	2.8
03-Jul	24.0	26.5	1.8	24.0	22.7	2.1	24.0	26.1	2.9	24.0	24.7	2.8

Table A-2. Summary of daily fishwheel effort (hours), effort used to calculate CPUE and fishwheel speed (RPM) for four fishwheels operated on the Nass River, 1997.

	Fishwheel 1			Fishwheel 2			Fishwheel 3			Fishwheel 4		
Date	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM
04-Jul	24.0	24.0	1.5	24.0	25.4	2.0	24.0	23.7	2.1	24.0	23.4	2.8
05-Jul	24.0	23.5	1.6	24.0	24.1	1.9	24.0	24.5	2.6	24.0	24.7	3.0
06-Jul	24.0	25.3	1.9	24.0	22.6	1.9	24.0	22.7	3.0	23.6	23.2	2.9
07-Jul	24.0	22.3	2.9	24.0	24.9	2.7	24.0	23.5	3.1	16.0	15.7	2.3
08-Jul	24.0	23.7	1.8	24.0	22.9	2.2	22.9	23.4	2.7	24.0	23.5	3.2
09-Jul	23.7	22.4	1.9	24.0	24.3	2.0	24.0	24.3	2.8	24.0	24.4	3.0
10-Jul	24.0	25.7	1.6	24.0	25.3	1.9	24.0	24.0	2.6	24.0	24.0	2.6
11-Jul	24.0	24.0	1.7	24.0	23.8	1.7	24.0	24.1	2.4	24.0	23.8	2.7
12-Jul	24.0	23.8	1.8	24.0	23.8	1.7	24.0	23.5	2.3	23.8	24.3	2.9
13-Jul	24.0	25.0	1.9	24.0	24.2	1.8	24.0	25.7	2.4	23.9	26.0	2.6
14-Jul	24.0	23.7	2.0	21.5	22.3	1.8	24.0	22.8	2.8	24.0	21.9	2.9
15-Jul	24.0	23.4	2.0	24.0	22.9	1.9	24.0	24.1	2.4	24.0	23.7	2.7
16-Jul	24.0	24.1	1.9	24.0	24.1	1.7	24.0	24.0	2.2	24.0	24.0	2.6
17-Jul	24.0	24.5	1.7	24.0	23.9	1.6	24.0	23.8	2.7	24.0	23.7	2.8
18-Jul	24.0	23.8	1.7	24.0	23.7	1.6	24.0	23.8	2.2	23.7	24.6	2.5
19-Jul	24.0	24.0	1.3	24.0	24.1	1.3	24.0	24.4	1.9	24.0	23.8	2.9
20-Jul	24.0	24.3	1.8	24.0	24.8	1.3	24.0	22.5	2.2	24.0	22.6	2.8
21-Jul	24.0	23.9	2.6	24.0	23.5	1.9	24.0	25.1	2.5	24.0	25.1	2.6
22-Jul	24.0	23.4	1.9	24.0	24.0	1.8	24.0	23.9	2.5	23.8	23.8	2.6
23-Jul	24.0	24.8	1.9	24.0	24.1	1.9	24.0	24.2	2.4	24.0	24.0	2.6
24-Jul	24.0	23.7	1.9	24.0	23.7	1.5	24.0	24.0	2.3	24.0	24.0	2.4
25-Jul	24.0	23.4	1.6	24.0	24.0	1.5	24.0	24.2	2.4	24.0	24.0	2.3
26-Jul	24.0	24.7	1.4	24.0	24.0	1.4	23.8	23.2	2.3	24.0	23.5	2.6
27-Jul	24.0	22.7	0.9	24.0	22.0	2.0	24.0	22.6	2.3	24.0	22.6	2.4
28-Jul	24.0	24.9	1.8	24.0	25.6	1.5	24.0	26.0	2.2	24.0	26.0	2.5
29-Jul	24.0	24.4	2.2	24.0	24.0	1.7	24.0	24.0	2.3	24.0	24.0	2.9
30-Jul	24.0	24.2	1.8	24.0	24.5	1.7	24.0	24.1	2.2	24.0	24.0	2.9
31-Jul	24.0	23.6	2.0	24.0	23.5	1.6	24.0	24.0	2.2	23.7	23.8	2.7
01-Aug	24.0	23.1	1.6	24.0	23.1	1.7	24.0	24.1	1.6	24.0	24.0	2.0
02-Aug	24.0	25.2	1.1	24.0	25.3	1.3	24.0	24.0	2.5	23.7	22.7	2.9
03-Aug	24.0	23.4	1.0	19.0	19.1	1.2	24.0	23.8	2.0	24.0	24.9	2.8
04-Aug	24.0	24.5	1.4	24.0	23.7	1.5	24.0	23.9	2.0	24.0	23.6	2.3
05-Aug	24.0	23.8	1.6	24.0	24.4	1.4	24.0	23.8	2.2	23.6	23.8	2.4
06-Aug	24.0	24.0	2.2	24.0	23.5	1.7	24.0	23.9	2.1	24.0	23.9	2.7
07-Aug	24.0	22.9	1.6	24.0	22.1	1.2	24.0	24.5	1.8	24.0	24.4	2.5
08-Aug	24.0	25.0		24.0	26.5		24.0	21.2	2.3	22.0	22.1	2.5
09-Aug	24.0	24.7	2.0	24.0	24.0	1.6	24.0	26.5	2.2	24.0	23.7	2.7
10-Aug	24.0	23.5	1.9	24.0	23.4	1.6	24.0	23.8	2.1	23.7	23.6	2.6
11-Aug	24.0	24.3	2.1	24.0	24.3	1.4	24.0	23.8	2.2	24.0	23.8	3.0
12-Aug	24.0	23.5	2.0	24.0	23.4	1.6	24.0	24.2	2.4	24.0	24.0	2.7
13-Aug	24.0	22.8	2.4	24.0	22.4	1.9	24.0	24.3	2.2	23.6	23.8	2.7
14-Aug	24.0	25.2	2.8	24.0	25.5	1.8	24.0	22.7	2.3	24.0	23.0	3.0
15-Aug	24.0	22.8	2.4	24.0	22.3	2.4	24.0	25.3	2.4	24.0	25.3	2.9
16-Aug	24.0	25.9	1.6	24.0	25.5	1.7	24.0	21.2	2.0	23.5	21.8	3.0

Table A-2. Summary of daily fishwheel effort (hours), effort used to calculate CPUE and fishwheel speed (RPM) for four fishwheels operated on the Nass River, 1997.

	Fishwheel 1			Fishwheel 2			Fishwheel 3			Fishwheel 4		
Date	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM	Total (h)	CPUE (h)	RPM
17-Aug	24.0	24.6	1.5	24.0	25.7	1.3	24.0	27.7	2.2	24.0	28.2	2.5
18-Aug	24.0	21.3	1.5	24.0	23.5	1.5	24.0	20.4	2.6	24.0	22.8	2.7
19-Aug	24.0	25.6	1.5	24.0	23.3	1.5	24.0	26.3	2.3	24.0	22.4	2.5
20-Aug	24.0	25.0	1.0	24.0	22.7	1.2	24.0	23.5	2.0	21.3	20.8	2.6
21-Aug	24.0	22.2	1.4	24.0	25.8	1.3	24.0	24.0	2.0	24.0	24.3	2.8
22-Aug	24.0	24.3	1.8	24.0	22.6	1.2	24.0	21.9	1.9	24.0	21.5	3.0
23-Aug	24.0	23.3	1.9	24.0	23.2	1.5	24.0	24.1	1.9	23.7	24.0	2.6
24-Aug	24.0	23.0	2.3	24.0	25.9	1.8	24.0	26.1	2.6	24.0	26.0	2.7
25-Aug	24.0	26.3	2.5	24.0	23.8	1.9	24.0	23.9	2.1	24.0	24.5	3.0
26-Aug	24.0	24.1		24.0	24.2		24.0	21.8	1.9	24.0	23.7	2.8
27-Aug	24.0	23.6	3.0	24.0	23.7	1.5	24.0	26.1	2.1	24.0	23.5	3.2
28-Aug	24.0	24.0	2.9	24.0	24.5	1.7	24.0	24.3	1.9	24.0	24.4	2.5
29-Aug	24.0	23.6	2.4	24.0	23.1	1.7	24.0	23.5	2.6	24.0	22.2	2.9
30-Aug	24.0	23.7	2.3	24.0	22.3	1.5	24.0	26.2	2.1	24.0	26.9	2.1
31-Aug	24.0	25.7	1.9	24.0	26.7	1.5	24.0	20.0	2.0	24.0	19.4	2.7
01-Sep	24.0	24.3	1.5	24.0	25.7	1.5	24.0	26.4	2.4	24.0	26.8	2.6
02-Sep	14.0	20.3	1.5	15.5	19.0	1.2	24.0	24.4	2.0	24.0	25.1	2.7
03-Sep							24.0	21.0	1.9	24.0	21.7	2.8
04-Sep							9.8	19.1	1.7	8.7	17.7	3.0
Totals	2164.3	2164.3		2199.9	2199.9		1881.5	1881.5		1728.3	1728.3	

Total hours of effort all fishwheels combined: 7974.0

Total number of days operated, all fishwheels: 345

[a]Overall percent operational while fishing: 96.3%

Total number of days operated by fishwheel:

94		96		81		74		

Percent operational during the representative period indicated

98.7%	8 June - 2 Sept.	100.0%	8 June - 2 Sept.	99.0%	19 June - 4 Sept	98.2%	24 June - 4 Sept	

[a] Does not include days when the fishwheels did not operate due to high water levels.

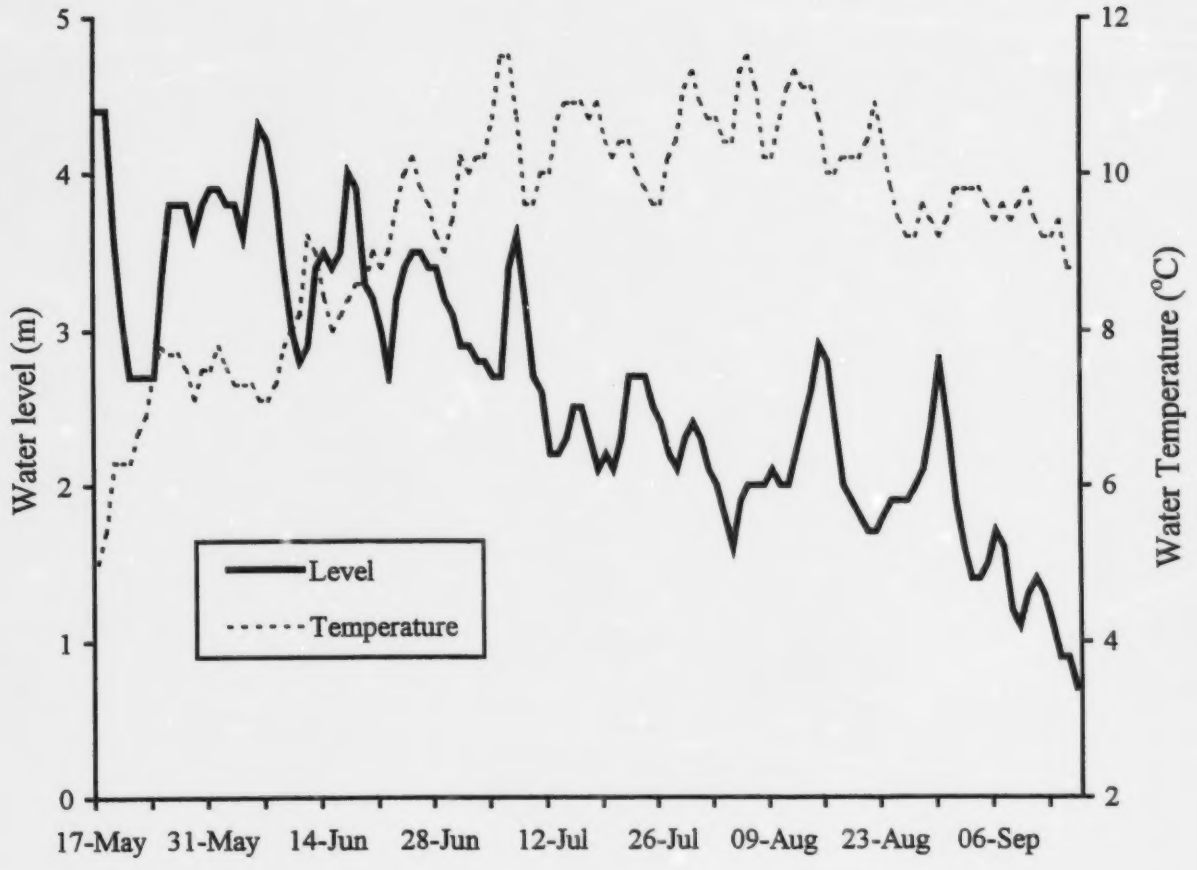

Figure A-1. Daily maximum water temperature and level in the Nass River near Gitwinksihlkw, 1997.

APPENDIX B

Daily catches at the Nass River fishwheels, 1997

Table B-1. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for chinook salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3						Fishwheel 4					
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE
21-May	0	0	0	0	0	-	0	0	0	0	0	0.00												
22-May	0	0	0	0	0	-	0	0	0	0	0	0.00												
23-May	0	0	0	0	0	-	0	0	0	0	0	0.00												
24-May	2	2	0	0	0	-	1	1	0	0	0	0.04												
25-May	0	2	0	0	0	0.00	1	2	0	0	0	0.06												
26-May	0	2	0	0	0	-	0	2	0	0	0	-												
27-May	0	2	0	0	0	-	0	2	0	0	0	-												
28-May	0	2	0	0	0	-	0	2	0	0	0	-												
29-May	0	2	0	0	0	-	0	2	0	0	0	-												
30-May	0	2	0	0	0	-	0	2	0	0	0	-												
31-May	0	2	0	0	0	-	0	2	0	0	0	-												
01-Jun	0	2	0	0	0	-	0	2	0	0	0	-												
02-Jun	3	5	0	0	0	0.75	0	2	0	0	0	-												
03-Jun	4	9	4	0	0	0.14	2	4	2	0	0	0.08												
04-Jun	6	15	6	0	0	0.26	6	10	6	0	0	0.26												
05-Jun	2	17	2	0	0	0.12	2	12	2	0	0	0.12												
06-Jun	0	17	0	0	0	-	0	12	0	0	0	-												
07-Jun	0	17	0	0	0	-	0	12	0	0	0	-												
08-Jun	7	24	7	0	0	0.30	5	17	4	0	0	0.94												
09-Jun	8	32	8	0	0	0.33	12	29	11	0	0	0.51												
10-Jun	15	47	15	0	0	0.61	21	50	20	0	0	0.84												
11-Jun	6	53	5	0	0	0.25	23	73	18	0	0	1.02												
12-Jun	6	59	5	0	0	0.25	25	98	19	0	0	1.01	2	2	2	0	0	0.50						
13-Jun	4	63	4	0	0	0.18	17	115	17	0	0	0.75	0	2	0	0	0	0.00						
14-Jun	6	69	6	0	0	0.25	25	140	22	0	0	1.08	0	2	0	0	0	-						
15-Jun	5	74	4	0	0	0.21	22	162	22	0	0	0.92	0	2	0	0	0	-						
16-Jun	9	83	8	0	0	0.35	12	174	11	0	0	0.47	0	2	0	0	0	-						
17-Jun	0	83	0	0	0	0.00	3	177	3	0	0	0.39	0	2	0	0	0	-						
18-Jun	5	88	4	0	0	0.22	12	189	10	0	0	0.51	0	2	0	0	0	-						
19-Jun	18	106	18	0	0	0.72	39	228	35	1	1	1.58	14	16	14	0	0	0.56						
20-Jun	56	162	51	1	1	2.28	54	282	51	0	1	2.22	17	33	16	1	1	0.72						
21-Jun	53	215	49	1	2	2.37	32	314	28	0	1	1.39	6	39	6	0	1	0.25						
22-Jun	71	286	67	0	2	4.10	59	373	55	1	2	2.43	17	56	15	0	1	0.72						
23-Jun	35	321	33	0	2	1.11	42	415	41	0	2	1.74	7	63	6	1	2	0.30						
24-Jun	23	344	22	1	3	0.99	23	438	19	0	2	0.99	3	66	3	1	3	0.13	1	1	1	0	0	0.04

Table B-1. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for chinook salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3						Fishwheel 4					
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE
25-Jun	18	362	16	0	3	0.76	11	449	10	0	2	0.45	1	67	1	0	3	0.05	1	2	0	0	0	0.04
26-Jun	15	377	15	3	6	0.64	23	472	23	0	2	0.96	0	67	0	0	3	0.00	0	2	0	0	0	0.00
27-Jun	14	391	14	1	7	0.58	7	479	7	0	2	0.29	4	71	4	0	3	0.13	1	3	1	0	0	0.04
28-Jun	18	409	17	4	11	0.69	28	507	26	0	2	1.13	5	76	5	1	4	0.21	3	6	3	0	0	0.12
29-Jun	99	508	20	2	13	3.45	95	602	22	2	4	3.27	16	92	15	0	4	0.67	10	16	10	2	2	0.39
30-Jun	110	618	99	4	17	5.06	123	725	114	2	6	6.14	63	155	60	2	6	2.51	56	72	50	1	3	2.34
01-Jul	59	677	56	5	22	2.57	103	828	97	2	8	4.19	26	181	25	2	8	1.14	38	110	38	1	4	1.69
02-Jul	35	712	32	1	23	1.75	84	912	74	3	11	3.70	41	222	40	5	13	1.66	20	130	17	4	8	0.81
03-Jul	122	834	103	7	30	4.60	68	980	64	0	11	2.99	48	270	40	1	14	1.84	54	184	52	1	9	2.18
04-Jul	50	884	44	1	31	2.09	55	1035	50	4	15	2.16	68	338	65	4	18	2.87	47	231	39	3	12	2.01
05-Jul	28	912	25	4	35	1.19	26	1061	26	3	18	1.08	143	481	0	4	22	5.83	243	474	25	3	15	9.86
06-Jul	18	930	17	2	37	0.71	17	1078	15	2	20	0.75	18	499	5	1	23	0.79	50	524	10	1	16	2.16
07-Jul	2	932	2	0	37	0.09	7	1085	6	1	21	0.28	1	500	0	0	23	0.04	1	525	1	0	16	0.06
08-Jul	4	936	3	0	37	0.17	3	1088	3	0	21	0.13	0	500	0	0	23	0.00	0	525	0	0	16	0.00
09-Jul	5	941	5	1	38	0.22	12	1100	11	0	21	0.49	3	503	2	0	23	0.12	3	528	3	0	16	0.12
10-Jul	11	952	10	7	45	0.43	18	1118	15	6	27	0.71	29	532	26	4	27	1.21	16	544	13	3	19	0.67
11-Jul	17	969	15	5	50	0.71	12	1130	12	5	32	0.50	44	576	0	5	32	1.83	39	583	0	4	23	1.64
12-Jul	16	985	14	2	52	0.67	29	1159	26	5	37	1.22	25	601	5	2	34	1.06	73	656	0	4	27	3.01
13-Jul	9	994	5	6	58	0.36	16	1175	12	4	41	0.66	18	619	7	2	36	0.70	42	698	8	5	32	1.62
14-Jul	5	999	4	8	66	0.21	7	1182	6	4	45	0.31	6	625	2	3	39	0.26	13	711	1	2	34	0.59
15-Jul	4	1003	3	6	72	0.17	0	1182	0	4	49	0.00	4	629	0	0	39	0.17	8	719	0	1	35	0.34
16-Jul	5	1008	5	3	75	0.21	2	1184	2	0	49	0.08	3	632	0	0	39	0.13	12	731	0	3	38	0.50
17-Jul	1	1009	1	2	77	0.04	3	1187	3	4	53	0.13	2	634	1	0	39	0.08	12	743	4	0	38	0.51
18-Jul	6	1015	4	1	78	0.25	1	1188	1	1	54	0.04	5	639	2	4	43	0.21	13	756	3	0	38	0.53
19-Jul	0	1015	0	1	79	0.00	0	1188	0	0	54	0.00	5	644	2	1	44	0.20	3	759	1	1	39	0.13
20-Jul	0	1015	0	0	79	0.00	1	1189	0	2	56	0.04	2	646	1	1	45	0.09	5	764	0	3	42	0.22
21-Jul	0	1015	0	1	80	0.00	3	1192	2	1	57	0.13	2	648	0	2	47	0.08	2	766	1	1	43	0.08
22-Jul	1	1016	1	1	81	0.04	0	1192	0	1	58	0.00	0	648	0	0	47	0.00	1	767	0	2	45	0.04
23-Jul	0	1016	0	0	81	0.00	1	1193	1	1	59	0.04	0	648	0	0	47	0.00	2	769	0	1	46	0.08
24-Jul	2	1018	2	5	86	0.08	4	1197	2	0	59	0.17	1	649	0	4	51	0.04	1	770	0	0	46	0.04
25-Jul	0	1018	0	1	87	0.00	0	1197	0	2	61	0.00	3	652	3	0	51	0.12	5	775	2	1	47	0.21
26-Jul	1	1019	0	2	89	0.04	1	1198	1	1	62	0.04	1	653	0	0	51	0.04	0	775	0	1	48	0.00
27-Jul	0	1019	0	1	90	0.00	0	1198	0	0	62	0.00	0	653	0	2	53	0.00	0	775	0	1	49	0.00
28-Jul	1	1020	0	1	91	0.04	0	1198	0	0	62	0.00	1	654	1	2	55	0.04	0	775	0	2	51	0.00
29-Jul	0	1020	0	0	91	0.00	1	1199	1	0	62	0.04	0	654	0	0	55	0.00	1	776	1	0	51	0.04

Table B-1. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for chinook salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3						Fishwheel 4					
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE
30-Jul	1	1021	1	1	92	0.04	1	1200	0	0	62	0.04	3	657	0	0	55	0.12	0	776	0	0	51	0.00
31-Jul	1	1022	0	1	93	0.04	2	1202	0	1	63	0.09	0	657	0	0	55	0.00	0	776	0	0	51	0.00
01-Aug	0	1022	0	0	93	0.00	0	1202	0	0	63	0.00	1	658	0	0	55	0.04	0	776	0	0	51	0.00
02-Aug	2	1024	0	1	94	0.08	0	1202	0	0	63	0.00	0	658	0	0	55	0.00	0	776	0	0	51	0.00
03-Aug	2	1026	2	0	94	0.09	0	1202	0	0	63	0.00	1	659	0	0	55	0.04	3	779	1	0	51	0.12
04-Aug	2	1028	1	0	94	0.08	1	1203	0	0	63	0.04	0	659	0	0	55	0.00	0	779	0	0	51	0.00
05-Aug	3	1031	0	0	94	0.13	2	1205	0	0	63	0.08	0	659	0	0	55	0.00	0	779	0	0	51	0.00
06-Aug	0	1031	0	1	95	0.00	1	1206	0	0	63	0.04	1	660	0	0	55	0.04	0	779	0	0	51	0.00
07-Aug	0	1031	0	0	95	0.00	3	1209	0	0	63	0.14	0	660	0	0	55	0.00	0	779	0	0	51	0.00
08-Aug	1	1032	0	0	95	0.04	2	1211	0	0	63	0.08	0	660	0	0	55	0.00	0	779	0	0	51	0.00
09-Aug	0	1032	0	0	95	0.00	2	1213	0	1	64	0.08	1	661	0	0	55	0.04	0	779	0	0	51	0.00
10-Aug	1	1033	0	1	96	0.04	0	1213	0	1	65	0.00	0	661	0	0	55	0.00	0	779	0	0	51	0.00
11-Aug	5	1038	0	0	96	0.21	0	1213	0	0	65	0.00	0	661	0	0	55	0.00	0	779	0	0	51	0.00
12-Aug	0	1038	0	0	96	0.00	1	1214	0	0	65	0.04	1	662	0	0	55	0.04	0	779	0	0	51	0.00
13-Aug	0	1038	0	0	96	0.00	1	1215	0	0	65	0.04	0	662	0	0	55	0.00	0	779	0	0	51	0.00
14-Aug	0	1038	0	0	96	0.00	0	1215	0	0	65	0.00	0	662	0	0	55	0.00	1	780	0	0	51	0.04
15-Aug	0	1038	0	0	96	0.00	1	1216	0	0	65	0.04	0	662	0	0	55	0.00	0	780	0	0	51	0.00
16-Aug	0	1038	0	0	96	0.00	0	1216	0	0	65	0.00	0	662	0	0	55	0.00	0	780	0	0	51	0.00
17-Aug	0	1038	0	0	96	0.00	2	1218	0	0	65	0.08	0	662	0	0	55	0.00	0	780	0	0	51	0.00
18-Aug	1	1039	0	0	96	0.05	3	1221	0	0	65	0.13	0	662	0	0	55	0.00	2	782	0	0	51	0.09
19-Aug	1	1040	0	0	96	0.04	2	1223	0	0	65	0.09	0	662	0	0	55	0.00	0	782	0	0	51	0.00
20-Aug	2	1042	0	0	96	0.08	2	1225	0	0	65	0.09	0	662	0	0	55	0.00	0	782	0	0	51	0.00
21-Aug	3	1045	0	0	96	0.14	2	1227	0	0	65	0.08	0	662	0	0	55	0.00	0	782	0	0	51	0.00
22-Aug	4	1049	0	0	96	0.16	1	1228	0	0	65	0.04	0	662	0	0	55	0.00	0	782	0	0	51	0.00
23-Aug	0	1049	0	0	96	0.00	2	1230	0	0	65	0.09	0	662	0	0	55	0.00	0	782	0	0	51	0.00
24-Aug	0	1049	0	0	96	0.00	0	1230	0	0	65	0.00	1	663	0	0	55	0.04	0	782	0	0	51	0.00
25-Aug	0	1049	0	0	96	0.00	0	1230	0	0	65	0.00	0	663	0	1	56	0.00	0	782	0	0	51	0.00
26-Aug	2	1051	0	0	96	0.08	0	1230	0	0	65	0.00	0	663	0	0	56	0.00	0	782	0	0	51	0.00
27-Aug	0	1051	0	0	96	0.00	2	1232	0	0	65	0.08	0	663	0	0	56	0.00	0	782	0	0	51	0.00
28-Aug	0	1051	0	0	96	0.00	1	1233	0	0	65	0.04	0	663	0	0	56	0.00	0	782	0	0	51	0.00
29-Aug	0	1051	0	0	96	0.00	0	1233	0	0	65	0.00	0	663	0	0	56	0.00	0	782	0	0	51	0.00
30-Aug	0	1051	0	0	96	0.00	0	1233	0	0	65	0.00	0	663	0	0	56	0.00	0	782	0	0	51	0.00
31-Aug	0	1051	0	0	96	0.00	0	1233	0	0	65	0.00	0	663	0	0	56	0.00	0	782	0	0	51	0.00
01-Sep	0	1051	0	0	96	0.00	0	1233	0	0	65	0.00	0	663	0	0	56	0.00	0	782	0	0	51	0.00
02-Sep	3	1054	0	0	96	0.15	0	1233	0	0	65	0.00	0	663	0	0	56	0.00	2	784	0	0	51	0.08

Table B-1. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for chinook salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3						Fishwheel 4					
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE
03-Sep	0	1054	0	0	96	-	0	1233	0	0	65	-	1	664	0	0	56	0.05	0	784	0	0	51	0.00
04-Sep	0	1054	0	0	96	-	0	1233	0	0	65	-	0	664	0	0	56	0.00	1	785	0	0	51	0.06
Totals	1054		854	96		45.04	1233		1028	65		52.92	664		374	56		27.74	785		285	51		32.51

Table B-2. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for sockeye salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adult	Cum.	Tagged	Jacks	Cum	CPUE	Adults	Cum.	Jacks	Cum.	CPUE	Adults	Cum.	Jacks	Cum	CPUE
21-May							0	0	0	0	0	0.0										
22-May							0	0	0	0	0	0.0										
23-May							0	0	0	0	0	0.0										
24-May	0	0	0	0	0	-	0	0	0	0	0	0.0										
25-May	0	0	0	0	0	0.0	0	0	0	0	0	0.0										
26-May	0	0	0	0	0	-	0	0	0	0	0	-										
27-May	0	0	0	0	0	-	0	0	0	0	0	-										
28-May	0	0	0	0	0	-	0	0	0	0	0	-										
29-May	0	0	0	0	0	-	0	0	0	0	0	-										
30-May	0	0	0	0	0	-	0	0	0	0	0	-										
31-May	0	0	0	0	0	-	0	0	0	0	0	-										
01-Jun	0	0	0	0	0	-	0	0	0	0	0	-										
02-Jun	0	0	0	0	0	0.0	0	0	0	0	0	-										
03-Jun	0	0	0	0	0	0.0	0	0	0	0	0	0.0										
04-Jun	0	0	0	0	0	0.0	0	0	0	0	0	0.0										
05-Jun	0	0	0	0	0	0.0	0	0	0	0	0	0.0										
06-Jun	0	0	0	0	0	-	0	0	0	0	0	-										
07-Jun	0	0	0	0	0	-	0	0	0	0	0	-										
08-Jun	3	3	3	0	0	0.1	0	0	0	0	0	0.0										
09-Jun	2	5	0	0	0	0.1	5	5	1	0	0	0.2										
10-Jun	8	13	3	0	0	0.3	3	8	2	0	0	0.1										
11-Jun	2	15	2	0	0	0.1	5	13	2	0	0	0.2										
12-Jun	4	19	3	0	0	0.2	12	25	3	0	0	0.5										
13-Jun	2	21	1	0	0	0.1	10	35	6	0	0	0.4										
14-Jun	2	23	2	0	0	0.1	11	46	6	0	0	0.5										
15-Jun	3	26	1	0	0	0.1	19	65	10	1	1	0.8										
16-Jun	6	32	4	0	0	0.2	5	70	2	0	1	0.2										
17-Jun	3	35	2	0	0	0.4	5	75	3	0	1	0.6										
18-Jun	2	37	2	0	0	0.1	4	79	3	1	2	0.2										
19-Jun	11	48	5	0	0	0.4	12	91	7	0	2	0.5	2	2	0	0	0.1					
20-Jun	8	56	4	0	0	0.3	17	108	9	0	2	0.7	5	7	0	0	0.2					

Table B-2. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for sockeye salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adult	Cum.	Tagged	Jacks	Cum	CPUE	Adults	Cum.	Jacks	Cum.	CPUE	Adults	Cum.	Jacks	Cum	CPUE
21-Jun	6	62	4	0	0	0.3	24	132	12	0	2	1.0	0	7	0	0	0.0					
22-Jun	9	71	5	0	0	0.5	30	162	15	0	2	1.2	5	12	0	0	0.2					
23-Jun	19	90	13	0	0	0.6	67	229	31	4	6	2.8	8	20	0	0	0.3					
24-Jun	20	110	5	0	0	0.9	39	268	21	0	6	1.7	4	24	0	0	0.2					
25-Jun	15	125	9	1	1	0.6	37	305	19	2	8	1.5	5	29	0	0	0.2	1	1	0	0	0.0
26-Jun	16	141	9	0	1	0.7	76	381	36	0	8	3.2	0	29	0	0	0.0	1	2	0	0	0.0
27-Jun	24	165	11	2	3	1.0	68	449	39	0	8	2.9	7	36	0	0	0.2	1	3	0	0	0.0
28-Jun	33	198	20	0	3	1.3	52	501	22	3	11	2.1	16	52	0	0	0.7	17	20	0	0	0.7
29-Jun	77	275	17	4	7	2.7	149	650	19	4	15	5.1	15	67	0	0	0.6	16	36	0	0	0.6
30-Jun	36	311	19	2	9	1.7	427	1077	205	7	22	21.3	21	88	0	0	0.8	26	62	0	0	1.1
01-Jul	39	350	28	1	10	1.7	216	1293	98	7	29	8.8	17	105	0	0	0.7	33	95	0	0	1.5
02-Jul	50	400	31	0	10	2.5	247	1540	116	7	36	10.9	20	125	0	0	0.8	31	126	0	0	1.3
03-Jul	99	499	53	2	12	3.7	222	1762	108	7	43	9.8	55	180	1	1	2.1	70	196	0	0	2.8
04-Jul	46	545	27	2	14	1.9	151	1913	72	5	48	5.9	153	333	1	2	6.5	73	269	1	1	3.1
05-Jul	29	574	18	1	15	1.2	76	1989	45	9	57	3.2	246	579	1	3	10.0	225	494	2	3	9.1
06-Jul	84	658	43	1	16	3.3	183	2172	92	7	64	8.1	145	724	1	4	6.4	207	701	3	6	8.9
07-Jul	27	685	4	0	16	1.2	34	2206	27	2	66	1.4	9	733	0	4	0.4	11	712	1	7	0.7
08-Jul	52	737	28	1	17	2.2	122	2328	58	4	70	5.3	10	743	0	4	0.4	21	733	0	7	0.9
09-Jul	100	837	45	6	23	4.5	244	2572	136	7	77	10.0	78	821	0	4	3.2	47	780	1	8	1.9
10-Jul	115	952	66	5	28	4.5	260	2832	146	8	85	10.3	155	976	0	4	6.5	146	926	4	12	6.1
11-Jul	74	1026	44	7	35	3.1	181	3013	93	9	94	7.6	206	1182	2	6	8.6	225	1151	6	18	9.4
12-Jul	105	1131	60	6	41	4.4	211	3224	98	3	97	8.9	214	1396	0	6	9.1	239	1390	6	24	9.9
13-Jul	61	1192	39	7	48	2.4	148	3372	71	11	108	6.1	210	1606	1	7	8.2	240	1630	2	26	9.2
14-Jul	61	1253	27	5	53	2.6	133	3505	63	10	118	6.0	129	1735	5	12	5.7	175	1805	11	37	8.0
15-Jul	66	1319	32	4	57	2.8	154	3659	79	2	120	6.7	123	1858	8	20	5.1	164	1969	12	49	6.9
16-Jul	69	1388	36	6	63	2.9	164	3823	83	4	124	6.8	134	1992	4	24	5.6	126	2095	7	56	5.3
17-Jul	68	1456	32	3	66	2.8	200	4023	101	10	134	8.4	113	2105	3	27	4.8	112	2207	5	61	4.7
18-Jul	82	1538	43	6	72	3.4	186	4209	99	3	137	7.8	124	2229	1	28	5.2	137	2344	7	68	5.6
19-Jul	71	1609	38	4	76	3.0	162	4371	85	4	141	6.7	125	2354	1	29	5.1	142	2486	4	72	6.0
20-Jul	90	1699	49	5	81	3.7	90	4461	55	2	143	3.6	74	2428	7	36	3.3	95	2581	5	77	4.2
21-Jul	68	1767	23	11	92	2.8	106	4567	63	7	150	4.5	79	2507	2	38	3.1	147	2728	7	84	5.9

Table B-2. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for sockeye salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adult	Cum.	Tagged	Jacks	Cum	CPUE	Adults	Cum.	Jacks	Cum.	CPUE	Adults	Cum.	Jacks	Cum	CPUE
22-Jul	90	1857	47	5	97	3.9	167	4734	100	5	155	7.0	98	2605	2	40	4.1	110	2838	7	91	4.6
23-Jul	91	1948	45	4	101	3.7	200	4934	104	3	158	8.3	135	2740	0	40	5.6	137	2975	7	98	5.7
24-Jul	107	2055	51	10	111	4.5	220	5154	114	8	166	9.3	155	2895	4	44	6.5	163	3138	3	101	6.8
25-Jul	126	2181	53	5	116	5.4	199	5353	111	8	174	8.3	180	3075	5	49	7.5	169	3307	1	102	7.0
26-Jul	121	2302	50	2	118	4.9	162	5515	91	7	181	6.7	140	3215	2	51	6.0	203	3510	4	106	8.6
27-Jul	77	2379	27	2	120	3.4	106	5621	61	5	186	4.8	166	3381	8	59	7.4	217	3727	7	113	9.6
28-Jul	81	2460	17	6	126	3.3	107	5728	59	7	193	4.2	89	3470	4	63	3.4	158	3885	1	114	6.1
29-Jul	67	2527	27	2	128	2.7	100	5828	53	4	197	4.2	128	3598	3	66	5.3	133	4018	5	119	5.5
30-Jul	40	2567	25	5	133	1.7	114	5942	50	1	198	4.7	104	3702	3	69	4.3	95	4113	5	124	4.0
31-Jul	91	2658	46	1	134	3.9	111	6053	66	4	202	4.7	107	3809	2	71	4.5	94	4207	8	132	3.9
01-Aug	117	2775	55	2	136	5.1	83	6136	36	1	203	3.6	122	3931	3	74	5.1	64	4271	6	138	2.7
02-Aug	123	2898	61	5	141	4.9	54	6190	31	6	209	2.1	121	4052	2	76	5.0	111	4382	8	146	4.9
03-Aug	70	2968	58	3	144	3.0	56	6246	10	2	211	2.9	117	4169	0	76	4.9	151	4533	5	151	6.1
04-Aug	114	3082	54	2	146	4.7	66	6312	35	4	215	2.8	163	4332	8	84	6.8	132	4665	5	156	5.6
05-Aug	101	3183	45	4	150	4.3	103	6415	63	6	221	4.2	138	4470	10	94	5.8	87	4752	8	164	3.7
06-Aug	89	3272	55	7	157	3.7	108	6523	47	5	226	4.6	158	4628	4	98	6.6	101	4853	3	167	4.2
07-Aug	67	3339	34	3	160	2.9	64	6587	38	3	229	2.9	124	4752	3	101	5.1	89	4942	9	176	3.6
08-Aug	52	3391	27	3	163	2.1	73	6660	36	9	238	2.8	83	4835	1	102	3.9	81	5023	4	180	3.7
09-Aug	65	3456	28	7	170	2.6	79	6739	40	4	242	3.3	108	4943	2	104	4.1	79	5102	5	185	3.3
10-Aug	65	3521	35	10	180	2.8	91	6830	40	10	252	3.9	121	5064	6	110	5.1	107	5209	7	192	4.5
11-Aug	80	3601	38	10	190	3.3	129	6959	66	6	258	5.3	97	5161	0	110	4.1	78	5287	4	196	3.3
12-Aug	72	3673	47	6	196	3.1	143	7102	63	1	259	6.1	67	5228	3	113	2.8	57	5344	4	200	2.4
13-Aug	23	3696	22	6	202	1.0	137	7239	56	7	266	6.1	47	5275	2	115	1.9	18	5362	2	202	0.8
14-Aug	12	3708	12	2	204	0.5	81	7320	35	2	268	3.2	17	5292	1	116	0.7	10	5372	0	202	0.4
15-Aug	40	3748	33	9	213	1.8	83	7403	41	6	274	3.7	62	5354	1	117	2.5	8	5380	1	203	0.3
16-Aug	79	3827	39	4	217	3.0	214	7617	123	7	281	8.4	118	5472	3	120	5.6	37	5417	1	204	1.7
17-Aug	62	3889	36	1	218	2.5	153	7770	74	9	290	6.0	254	5726	3	123	9.2	161	5578	8	212	5.7
18-Aug	23	3912	16	1	219	1.1	127	7897	69	3	293	5.4	138	5864	5	128	6.8	72	5650	5	217	3.2
19-Aug	34	3946	23	2	221	1.3	85	7982	50	7	300	3.7	139	6003	2	130	5.3	139	5789	10	227	6.2
20-Aug	26	3972	5	0	221	1.0	41	8023	28	2	302	1.8	150	6153	8	138	6.4	95	5884	5	232	4.6
21-Aug	38	4010	11	3	224	1.7	40	8063	22	3	305	1.6	150	6303	4	142	6.2	129	6013	7	239	5.3

Table B-2. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for sockeye salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adult	Cum.	Tagged	Jacks	Cum	CPUE	Adults	Cum.	Jacks	Cum.	CPUE	Adults	Cum.	Jacks	Cum	CPUE
22-Aug	54	4064	19	5	229	2.2	55	8118	35	4	309	2.4	117	6420	5	147	5.3	58	6071	2	241	2.7
23-Aug	72	4136	11	1	230	3.1	52	8170	14	2	311	2.2	75	6495	1	148	3.1	60	6131	3	244	2.5
24-Aug	40	4176	21	4	234	1.7	46	8216	20	2	313	1.8	63	6558	3	151	2.4	49	6180	2	246	1.9
25-Aug	46	4222	20	3	237	1.7	39	8255	26	2	315	1.6	62	6620	2	153	2.6	66	6246	1	247	2.7
26-Aug	38	4260	12	0	237	1.6	37	8292	22	2	317	1.5	63	6683	2	155	2.9	70	6316	3	250	3.0
27-Aug	36	4296	20	4	241	1.5	49	8341	22	0	317	2.1	66	6749	2	157	2.5	44	6360	1	251	1.9
28-Aug	26	4322	7	2	243	1.1	49	8390	28	0	317	2.0	40	6789	0	157	1.6	22	6382	1	252	0.9
29-Aug	18	4340	7	0	243	0.8	44	8434	25	1	318	1.9	28	6817	0	157	1.2	31	6413	1	253	1.4
30-Aug	110	4450	0	3	246	4.6	95	8529	29	1	319	4.3	66	6883	0	157	2.5	38	6451	1	254	1.4
31-Aug	142	4592	0	3	249	5.5	70	8599	41	2	321	2.6	83	6966	1	158	4.2	162	6613	1	255	8.4
01-Sep	50	4642	0	0	249	2.1	53	8652	5	2	323	2.1	173	7139	1	159	6.6	180	6793	4	259	6.7
02-Sep	77	4719	14	1	250	3.8	24	8676	10	0	323	1.3	85	7224	0	159	3.5	92	6885	1	260	3.7
03-Sep						-						-	74	7298	0	159	3.5	64	6949	1	261	3.0
04-Sep						-						-	61	7359	1	160	3.2	59	7008	0	261	3.3
Totals	4719		2163	250		196.7	8676		4350	323		366.8	7359		160		307.9	7008		261		295.4

Table B-3. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for coho salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3						Fishwheel 4					
Date	Adults	Cum.	Tagged	Jacks	Cum.	PUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	PUE	Adults	Cum.	agged	Jacks	Cum.	PUE
17-Jul	0	0	0	0	0	0.00	0	0	0	0	0	0.00	0	0	0	0	0	0.00	0	0	0	1	1	0.00
18-Jul	0	0	0	0	0	0.00	0	0	0	0	0	0.00	0	0	0	0	0	0.00	0	0	0	0	1	0.00
19-Jul	0	0	0	1	1	0.00	0	0	0	0	0	0.00	0	0	0	0	0	0.00	0	0	0	0	1	0.00
20-Jul	0	0	0	0	1	0.00	0	0	0	1	1	0.00	0	0	0	0	0	0.00	0	0	0	0	1	0.00
21-Jul	0	0	0	0	1	0.00	0	0	0	0	1	0.00	0	0	0	0	0	0.00	0	0	0	0	1	0.00
22-Jul	0	0	0	2	3	0.00	0	0	0	1	2	0.00	0	0	0	0	0	0.00	0	0	0	0	1	0.00
23-Jul	0	0	0	1	4	0.00	0	0	0	0	2	0.00	0	0	0	0	0	0.00	0	0	0	0	1	0.00
24-Jul	0	0	0	1	5	0.00	1	1	0	2	4	0.04	0	0	0	0	0	0.00	0	0	0	0	1	0.00
25-Jul	1	1	0	1		0.04	0	1	0	1	5	0.00	0	0	0	1	1	0.00	0	0	0	0	1	0.00
26-Jul	4	5	0	3	9	0.16	2	3	0	3	8	0.08	0	0	0	0	1	0.00	0	0	0	0	1	0.00
27-Jul	2	7	0	1	10	0.09	0	3	0	2	10	0.00	0	0	0	0	1	0.00	0	0	0	2	3	0.00
28-Jul	8	15	3	5	15	0.32	6	9	6	2	12	0.23	0	0	0	1	2	0.00	0	0	0	0	3	0.00
29-Jul	3	18	3	4	19	0.12	0	9	0	1	13	0.00	0	0	0	0	2	0.00	4	4	3	1	4	0.17
30-Jul	8	26	8	2	21	0.33	5	14	4	1	14	0.20	0	0	0	0	2	0.00	0	4	0	2	6	0.00
31-Jul	15	41	15	2	23	0.64	5	19	5	1	15	0.21	0	0	0	2	4	0.00	1	5	1	1	7	0.04
01-Aug	7	48	7	3	26	0.30	3	22	3	2	17	0.13	0	0	0	1	5	0.00	2	7	2	1	8	0.08
02-Aug	9	57	7	1	27	0.36	7	29	6	1	18	0.28	2	2	1	3	8	0.08	2	9	0	3	11	0.09
03-Aug	7	64	6	0	27	0.30	2	31	1	1	19	0.10	1	3	0	2	10	0.04	3	12	0	4	15	0.12
04-Aug	8	72	6	2	29	0.33	7	38	6	2	21	0.30	1	4	1	0	10	0.04	3	15	2	0	15	0.13
05-Aug	1	73	1	2	31	0.04	1	39	1	1	22	0.04	0	4	0	1	11	0.00	2	17	0	1	16	0.08
06-Aug	10	83	10	4	35	0.42	4	43	4	1	23	0.17	1	5	1	3	14	0.04	3	20	3	1	17	0.13
07-Aug	12	95	11	0	35	0.52	1	44	1	0	23	0.05	0	5	0	0	14	0.00	1	21	1	0	17	0.04
08-Aug	23	118	18	4	39	0.92	7	51	7	0	23	0.26	1	6	0	2	16	0.05	4	25	4	0	17	0.18
09-Aug	25	143	19	5	44	1.01	11	62	11	2	25	0.46	6	12	6	0	16	0.23	3	28	3	2	19	0.13
10-Aug	20	163	18	2	46	0.85	9	71	7	1	26	0.38	3	15	3	2	18	0.13	12	40	10	1	20	0.51
11-Aug	34	197	32	1	47	1.40	2	73	1	1	27	0.08	3	18	1	2	20	0.13	14	54	13	2	22	0.59
12-Aug	13	210	10	3	50	0.55	6	79	5	1	28	0.26	1	19	1	2	22	0.04	4	58	4	2	24	0.17
13-Aug	11	221	11	1	51	0.48	16	95	16	1	29	0.71	2	21	2	1	23	0.08	5	63	4	0	24	0.21
14-Aug	6	227	6	1	52	0.24	12	107	12	6	35	0.47	1	22	1	1	24	0.04	2	65	2	0	24	0.09

Table B-3. Daily catches, numbers of fish tagged, and CPUE (adult catch per hour) for coho salmon captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1						Fishwheel 2						Fishwheel 3						Fishwheel 4					
Date	Adults	Cum.	Tagged	Jacks	Cum.	PUE	Adults	Cum.	Tagged	Jacks	Cum.	CPUE	Adults	Cum.	Tagged	Jacks	Cum.	PUE	Adults	Cum.	agged	Jacks	Cum.	PUE
15-Aug	15	242	15	3	55	0.66	14	121	13	3	38	0.63	6	28	2	2	26	0.24	0	65	0	2	26	0.00
16-Aug	35	277	29	5	60	1.35	56	177	52	6	44	2.19	13	41	11	0	26	0.61	2	67	2	0	26	0.09
17-Aug	28	305	27	2	62	1.14	25	202	21	1	45	0.97	34	75	22	6	32	1.23	33	100	15	1	27	1.17
18-Aug	8	313	7	3	65	0.38	13	215	12	1	46	0.55	4	79	3	3	35	0.20	7	107	7	3	30	0.31
19-Aug	18	331	18	4	69	0.70	11	226	9	1	47	0.47	11	90	7	0	35	0.42	17	124	12	4	34	0.76
20-Aug	14	345	8	2	71	0.56	6	232	3	0	47	0.26	6	96	6	3	38	0.26	12	136	12	1	35	0.58
21-Aug	13	358	12	1	72	0.59	10	242	9	0	47	0.39	10	106	10	3	41	0.42	33	169	16	3	38	1.36
22-Aug	15	373	13	2	74	0.62	12	254	12	0	47	0.53	6	112	5	1	42	0.27	12	181	11	1	39	0.56
23-Aug	5	378	3	2	76	0.21	10	264	4	1	48	0.43	18	130	0	0	42	0.75	5	186	0	0	39	0.21
24-Aug	17	395	13	2	78	0.74	19	283	13	2	50	0.73	5	135	5	1	43	0.19	18	204	17	2	41	0.69
25-Aug	26	421	23	3	81	0.99	10	293	9	1	51	0.42	5	140	5	0	43	0.21	8	212	7	0	41	0.33
26-Aug	21	442	13	1	82	0.87	8	301	4	1	52	0.33	2	142	1	0	43	0.09	6	218	4	0	41	0.25
27-Aug	11	453	11	2	84	0.47	4	305	4	0	52	0.17	12	154	10	1	44	0.46	13	231	13	1	42	0.55
28-Aug	11	464	9	0	84	0.46	7	312	5	0	52	0.29	14	168	14	3	47	0.58	6	237	5	3	45	0.25
29-Aug	2	466	0	0	84	0.08	6	318	5	0	52	0.26	2	170	2	5	52	0.09	4	241	1	2	47	0.18
30-Aug	35	501	4	0	84	1.48	8	326	5	0	52	0.36	16	186	0	3	55	0.61	11	252	8	3	50	0.41
31-Aug	20	521	0	4	88	0.78	15	341	13	1	53	0.56	11	197	7	1	56	0.55	11	263	8	3	53	0.57
01-Sep	15	536	0	2	90	0.62	4	345	2	2	55	0.16	22	219	0	2	58	0.83	41	304	0	1	54	1.53
02-Sep	3	539	0	2	92	0.15	2	347	0	2	57	0.11	2	221	2	1	59	0.08	16	320	14	4	58	0.64
03-Sep						-						-	1	222	0	1	60	0.05	6	326	0	1	59	0.28
04-Sep						-						-	3	225	0	1	61	0.16	1	327	0	1	60	0.06
Totals	539		396	92		22.3	347		291	57		14.29	225		129	61		9.18	327		204	60		13.5

Table B-4. Daily catches, numbers of fish tagged and CPUE (adult catch per hour) for steelhead captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Cum.	CPUE	Adult	Cum	Tagge	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE
21-May	0	0	0	0	-	1	1	0	0	0.25										
22-May	0	0	0	0	-	3	4	0	0	0.13										
23-May	0	0	0	0	-	1	5	0	0	0.04										
24-May	0	0	0	0	-	2	7	0	0	0.08										
25-May	0	0	0	0	0.00	0	7	0	0	0.00										
26-May	0	0	0	0	-	0	7	0	0	-										
27-May	0	0	0	0	-	0	7	0	0	-										
28-May	0	0	0	0	-	0	7	0	0	-										
29-May	0	0	0	0	-	0	7	0	0	-										
30-May	0	0	0	0	-	0	7	0	0	-										
31-May	0	0	0	0	-	0	7	0	0	-										
01-Jun	0	0	0	0	-	0	7	0	0	-										
02-Jun	0	0	0	0	0.00	0	7	0	0	-										
03-Jun	0	0	0	0	0.00	1	8	0	0	0.04										
04-Jun	0	0	0	0	0.00	1	9	0	0	0.04										
05-Jun	0	0	0	0	0.00	0	9	0	0	0.00										
06-Jun	0	0	0	0	-	0	9	0	0	-										
07-Jun	0	0	0	0	-	0	9	0	0	-										
08-Jun	1	1	0	0	0.04	0	9	0	0	0.00										
09-Jun	0	1	0	0	0.00	1	10	0	0	0.04										
10-Jun	0	1	0	0	0.00	3	13	0	0	0.12										
11-Jun	0	1	0	0	0.00	0	13	0	0	0.00										
12-Jun	0	1	0	0	0.00	1	14	0	0	0.04	0	0	0	0	0.00					
13-Jun	0	1	0	0	0.00	1	15	0	0	0.04	0	0	0	0	0.00					
14-Jun	0	1	0	0	0.00	0	15	0	0	0.00	0	0	0	0	-					
15-Jun	0	1	0	0	0.00	0	15	0	0	0.00	0	0	0	0	-					
16-Jun	0	1	0	0	0.00	0	15	0	0	0.00	0	0	0	0	-					
17-Jun	0	1	0	0	0.00	0	15	0	0	0.00	0	0	0	0	-					
18-Jun	0	1	0	0	0.00	0	15	0	0	0.00	0	0	0	0	-					

Table B-4. Daily catches, numbers of fish tagged and CPUE (adult catch per hour) for steelhead captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Cum.	CPUE	Adult	Cum	Tagge	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE
19-Jun	0	1	0	0	0.00	0	15	0	0	0.00	0	0	0	0	0.00					
20-Jun	2	3	0	0	0.08	1	16	0	0	0.04	0	0	0	0	0.00					
21-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00					
22-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00					
23-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00					
24-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
25-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
26-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
27-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
28-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
29-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
30-Jun	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
01-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
02-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
03-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
04-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
05-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
06-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
07-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
08-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
09-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
10-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
11-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
12-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
13-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
14-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
15-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
16-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
17-Jul	0	3	0	0	0.00	0	16	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00

Table B-4. Daily catches, numbers of fish tagged and CPUE (adult catch per hour) for steelhead captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Cum.	CPUE	Adult	Cum	Tagge	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE
18-Jul																				
19-Jul	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
20-Jul	1	1	0	0	0.04	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
21-Jul	0	1	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00
22-Jul	0	1	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	1	1	0	0	0.04
23-Jul	0	1	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	1	0	0	0.00
24-Jul	0	1	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	1	0	0	0.00
25-Jul	0	1	0	0	0.00	1	1	0	0	0.04	0	0	0	0	0.00	0	1	0	0	0.00
26-Jul	3	4	0	0	0.12	1	2	0	0	0.04	0	0	0	0	0.00	0	1	0	0	0.00
27-Jul	0	4	0	0	0.00	0	2	0	0	0.00	0	0	0	0	0.00	0	1	0	0	0.00
28-Jul	1	5	1	1	0.04	0	2	0	0	0.00	0	0	0	0	0.00	0	1	0	0	0.00
29-Jul	0	5	0	1	0.00	0	2	0	0	0.00	0	0	0	0	0.00	0	1	0	0	0.00
30-Jul	2	7	2	3	0.08	1	3	1	1	0.04	0	0	0	0	0.00	0	1	0	0	0.00
31-Jul	0	7	0	3	0.00	3	6	3	4	0.13	1	1	1	1	0.04	0	1	0	0	0.00
01-Aug	1	8	1	4	0.04	1	7	1	5	0.04	1	2	0	1	0.04	0	1	0	0	0.00
02-Aug	0	8	0	4	0.00	0	7	0	5	0.00	0	2	0	1	0.00	0	1	0	0	0.00
03-Aug	0	8	0	4	0.00	1	8	1	6	0.05	0	2	0	1	0.00	1	2	1	1	0.04
04-Aug	2	10	1	5	0.08	2	10	2	8	0.08	0	2	0	1	0.00	0	2	0	1	0.00
05-Aug	3	13	3	8	0.13	0	10	0	8	0.00	0	2	0	1	0.00	0	2	0	1	0.00
06-Aug	0	13	0	8	0.00	3	13	3	11	0.13	3	5	2	3	0.13	0	2	0	1	0.00
07-Aug	3	16	3	11	0.13	2	15	2	13	0.09	1	6	1	4	0.04	0	2	0	1	0.00
08-Aug	2	18	2	13	0.08	2	17	1	14	0.08	0	6	0	4	0.00	0	2	0	1	0.00
09-Aug	2	20	2	15	0.08	3	20	3	17	0.12	0	6	0	4	0.00	0	2	0	1	0.00
10-Aug	2	22	2	17	0.09	1	21	1	18	0.04	1	7	1	5	0.04	4	6	4	5	0.17
11-Aug	3	25	2	19	0.12	4	25	4	22	0.16	0	7	0	5	0.00	1	7	0	5	0.04
12-Aug	2	27	2	21	0.09	3	28	2	24	0.13	1	8	1	6	0.04	2	9	2	7	0.08
13-Aug	2	29	1	22	0.09	6	34	6	30	0.27	2	10	1	7	0.08	1	10	1	8	0.04
14-Aug	1	30	1	23	0.04	1	35	1	31	0.04	0	10	0	7	0.00	0	10	0	8	0.00
15-Aug	0	30	0	23	0.00	2	37	2	33	0.09	0	10	0	7	0.00	0	10	0	8	0.00

Table B-4. Daily catches, numbers of fish tagged and CPUE (adult catch per hour) for steelhead captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Adults	Cum.	Tagged	Cum.	CPUE	Adult	Cum	Tagge	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE	Adults	Cum.	Tagged	Cum.	CPUE
16-Aug	7	37	7	30	0.27	8	45	6	39	0.31	0	10	0	7	0.00	0	10	0	8	0.00
17-Aug	0	37	0	30	0.00	6	51	5	44	0.23	2	12	1	8	0.07	0	10	0	8	0.00
18-Aug	2	39	1	31	0.09	7	58	6	50	0.30	1	13	1	9	0.05	0	10	0	8	0.00
19-Aug	5	44	5	36	0.20	10	68	10	60	0.43	6	19	5	14	0.23	2	12	2	10	0.09
20-Aug	4	48	4	40	0.16	2	70	2	62	0.09	6	25	5	19	0.26	2	14	2	12	0.10
21-Aug	7	55	7	47	0.32	12	82	11	73	0.47	6	31	4	23	0.25	5	19	4	16	0.21
22-Aug	13	68	8	55	0.53	8	90	7	80	0.35	10	41	10	33	0.46	1	20	1	17	0.05
23-Aug	6	74	4	59	0.26	13	103	6	86	0.56	5	46	0	33	0.21	2	22	0	17	0.08
24-Aug	8	82	6	65	0.35	10	113	8	94	0.39	4	50	4	37	0.15	2	24	2	19	0.08
25-Aug	3	85	2	67	0.11	4	117	4	98	0.17	5	55	5	42	0.21	1	25	0	19	0.04
26-Aug	7	92	6	73	0.29	13	130	12	110	0.54	2	57	1	43	0.09	6	31	6	25	0.25
27-Aug	0	92	0	73	0.00	9	139	8	118	0.38	4	61	3	46	0.15	2	33	2	27	0.08
28-Aug	3	95	2	75	0.13	9	148	8	126	0.37	1	62	1	47	0.04	0	33	0	27	0.00
29-Aug	2	97	2	77	0.08	3	151	3	129	0.13	3	65	2	49	0.13	2	35	2	29	0.09
30-Aug	1	98	1	78	0.04	2	153	1	130	0.09	1	66	1	50	0.04	2	37	1	30	0.07
31-Aug	3	101	2	80	0.12	5	158	5	135	0.19	7	73	6	56	0.35	8	45	7	37	0.41
01-Sep	9	110	8	88	0.37	16	174	14	149	0.62	12	85	9	65	0.46	22	67	20	57	0.82
02-Sep	11	121	9	97	0.54	2	176	2	151	0.11	8	93	7	72	0.33	9	76	7	64	0.36
03-Sep					-					-	7	100	6	78	0.33	5	81	4	68	0.23
04-Sep					-					-	3	103	0	78	0.16	2	83	0	68	0.11
Totals[a]	124		97		5.24	192		151		8.17	103		78		4.37	83		68		3.50
Totals[b]	121		97		5.11	176		151		7.30	103		78		4.37	83		68		3.50

[a] Total from 21 May to 4 September.

[b] Total from 18 July to 4 September (excludes winter-run fish and kelts).

Table B-5. Daily catches of pink and chum salmon at the Nass River fishwheels, 1997.

	Pink								Chum							
Date	FW1	Cum.	FW2	Cum.	Fw3	Cum.	Fw4	Cum.	FW1	Cum.	FW2	Cum.	FW3	Cum.	FW4	Cum.
01-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Jul	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
05-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
06-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
09-Jul	0	0	1	1	0	0	0	0	0	0	1	1	0	1	0	0
10-Jul	1	1	3	4	0	0	0	0	0	0	0	1	0	1	0	0
11-Jul	1	2	2	6	0	0	0	0	0	0	0	1	0	1	0	0
12-Jul	2	4	8	14	0	0	0	0	0	0	0	1	1	2	0	0
13-Jul	1	5	6	20	0	0	1	1	0	0	0	1	0	2	0	0
14-Jul	5	10	8	28	0	0	1	2	0	0	0	1	0	2	0	0
15-Jul	1	11	6	34	0	0	0	2	0	0	0	1	0	2	0	0
16-Jul	2	13	12	46	1	1	0	2	0	0	0	1	0	2	0	0
17-Jul	2	15	4	50	3	4	1	3	0	0	0	1	0	2	0	0
18-Jul	5	20	5	55	1	5	0	3	0	0	0	1	0	2	0	0
19-Jul	10	30	11	66	0	5	1	4	1	1	0	1	0	2	0	0
20-Jul	17	47	13	79	4	9	0	4	0	1	0	1	0	2	0	0
21-Jul	10	57	13	92	1	10	0	4	0	1	0	1	0	2	1	1
22-Jul	7	64	14	106	2	12	0	4	1	2	0	1	0	2	0	1
23-Jul	9	73	29	135	0	12	0	4	0	2	0	1	0	2	0	1
24-Jul	23	96	33	168	5	17	0	4	0	2	0	1	0	2	0	1
25-Jul	32	128	56	224	5	22	2	6	0	2	0	1	0	2	0	1
26-Jul	31	159	70	294	9	31	3	9	0	2	1	2	0	2	0	1
27-Jul	21	180	29	323	5	36	4	13	1	3	1	3	0	2	0	1
28-Jul	123	303	60	383	3	39	6	19	0	3	0	3	1	3	0	1
29-Jul	83	386	46	429	5	44	0	19	1	4	0	3	0	3	0	1
30-Jul	88	474	100	529	6	50	3	22	1	5	0	3	0	3	0	1
31-Jul	106	580	67	596	19	69	21	43	1	6	0	3	0	3	0	1

Table B-5. Daily catches of pink and chum salmon at the Nass River fishwheels, 1997.

	Pink								Chum							
Date	FW1	Cum.	FW2	Cum.	Fw3	Cum.	Fw4	Cum.	FW1	Cum.	FW2	Cum.	FW3	Cum.	FW4	Cum.
01-Aug	175	755	144	740	11	80	34	77	0	6	0	3	0	3	0	1
02-Aug	160	915	107	847	28	108	32	109	1	7	1	4	0	3	1	2
03-Aug	73	988	61	908	22	130	27	136	1	8	0	4	0	3	0	2
04-Aug	147	1135	105	1013	25	155	17	153	1	9	1	5	1	4	2	4
05-Aug	73	1208	80	1093	10	165	5	158	0	9	1	6	1	5	0	4
06-Aug	128	1336	55	1148	11	176	6	164	0	9	1	7	0	5	0	4
07-Aug	158	1494	64	1212	5	181	21	185	2	11	4	11	0	5	0	4
08-Aug	201	1695	263	1475	15	196	35	220	1	12	3	14	1	6	1	5
09-Aug	288	1983	188	1663	22	218	29	249	1	13	1	15	0	6	0	5
10-Aug	220	2203	182	1845	12	230	50	299	1	14	0	15	0	6	0	5
11-Aug	317	2520	128	1973	32	262	39	338	2	16	0	15	0	6	0	5
12-Aug	42	2562	55	2028	25	287	38	376	0	16	0	15	0	6	0	5
13-Aug	22	2584	52	2080	10	297	16	392	0	16	0	15	0	6	0	5
14-Aug	8	2592	31	2111	0	297	2	394	0	16	0	15	0	6	0	5
15-Aug	7	2599	49	2160	9	306	0	394	0	16	0	15	0	6	0	5
16-Aug	171	2770	247	2407	37	343	6	400	0	16	0	15	0	6	0	5
17-Aug	132	2902	345	2752	56	399	86	486	1	17	4	19	0	6	0	5
18-Aug	62	2964	257	3009	41	440	61	547	0	17	0	19	0	6	0	5
19-Aug	124	3088	244	3253	26	466	95	642	3	20	1	20	1	7	0	5
20-Aug	123	3211	302	3555	45	511	63	705	3	23	4	24	1	8	0	5
21-Aug	129	3340	263	3818	49	560	68	773	3	26	6	30	0	8	0	5
22-Aug	101	3441	117	3935	29	589	34	807	1	27	1	31	1	9	0	5
23-Aug	113	3554	89	4024	23	612	46	853	0	27	2	33	2	11	0	5
24-Aug	204	3758	155	4179	27	639	69	922	3	30	1	34	0	11	0	5
25-Aug	318	4076	233	4412	31	670	60	982	2	32	3	37	0	11	0	5
26-Aug	201	4277	113	4525	33	703	61	1043	1	33	1	38	1	12	0	5
27-Aug	61	4338	53	4578	27	730	22	1065	0	33	1	39	0	12	0	5
28-Aug	45	4383	86	4664	21	751	32	1097	0	33	0	39	0	12	0	5
29-Aug	15	4398	70	4734	11	762	25	1122	0	33	0	39	0	12	0	5
30-Aug	75	4473	69	4803	27	789	14	1136	0	33	1	40	0	12	0	5
31-Aug	278	4751	506	5309	28	817	64	1200	3	36	4	44	2	14	0	5

Table B-5. Daily catches of pink and chum salmon at the Nass River fishwheels, 1997.

	Pink								Chum							
Date	FW1	Cum.	FW2	Cum.	Fw3	Cum.	Fw4	Cum.	FW1	Cum.	FW2	Cum.	FW3	Cum.	FW4	Cum.
01-Sep	217	4968	411	5720	61	878	98	1298	2	38	8	52	1	15	0	5
02-Sep	113	5081	54	5774	29	907	51	1349	4	42	2	54	3	18	1	6
03-Sep		5081		5774	13	920	24	1373		42		54	3	21	3	9
04-Sep		5081		5774	8	928	11	1384		42		54	1	22	3	12
Totals	5081		5774		928		1384		42		54		22		12	

Table B-6. Catches of other species (non-Pacific salmon) captured in the Nass River fishwheels, 1997.

	Dolly Varden				Cutthroat trout				Rainbow trout				Whitefish				Long nose sucker			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
21-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
25-May	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-Jun	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
06-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jun	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
11-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
13-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

Table B-6. Catches of other species (non-Pacific salmon) captured in the Nass River fishwheels, 1997.

	Dolly Varden				Cutthroat trout				Rainbow trout				Whitefish				Long nose sucker			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
22-Jun	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Jun	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
26-Jun	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
27-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0
30-Jun	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
01-Jul	0	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0
02-Jul	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
03-Jul	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-Jul	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
06-Jul	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-Jul	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
10-Jul	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jul	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12-Jul	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
13-Jul	0	2	0	0	1	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0
14-Jul	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0
15-Jul	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jul	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
18-Jul	4	3	0	0	1	0	1	0	0	0	0	0	1	3	1	0	0	0	0	0
19-Jul	4	9	0	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0
20-Jul	6	1	0	0	0	0	0	0	0	0	0	0	6	1	1	1	0	0	0	0
21-Jul	1	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Table B-6. Catches of other species (non-Pacific salmon) captured in the Nass River fishwheels, 1997.

	Dolly Varden				Cutthroat trout				Rainbow trout				Whitefish				Long nose sucker			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
22-Jul	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
23-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
24-Jul	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
25-Jul	7	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
26-Jul	3	5	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0
27-Jul	10	2	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
28-Jul	11	10	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
29-Jul	5	3	0	1	0	0	0	0	0	0	0	1	0	0	2	1	0	0	0	0
30-Jul	3	5	0	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0	0
31-Jul	3	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	0	0	0
01-Aug	1	1	1	2	0	0	0	0	0	0	0	0	2	1	1	2	0	0	0	0
02-Aug	4	4	0	0	0	0	0	0	0	1	0	0	1	1	2	1	0	0	0	0
03-Aug	10	0	0	0	0	1	0	0	0	0	0	0	1	2	3	0	0	0	0	0
04-Aug	5	2	0	0	0	0	0	0	1	0	0	0	3	5	2	0	0	0	0	0
05-Aug	10	4	0	0	0	1	0	0	0	0	0	0	1	0	1	1	0	0	0	0
06-Aug	6	2	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07-Aug	5	3	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08-Aug	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-Aug	4	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
10-Aug	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0
11-Aug	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Aug	3	1	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0
13-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug	4	8	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
17-Aug	2	6	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
18-Aug	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
19-Aug	1	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
20-Aug	3	4	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0
21-Aug	2	7	0	0	0	1	0	0	0	0	0	1	0	5	1	0	1	2	0	0

Table B-6. Catches of other species (non-Pacific salmon) captured in the Nass River fishwheels, 1997.

	Dolly Varden				Cutthroat trout				Rainbow trout				Whitefish				Long nose sucker			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
22-Aug	1	5	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0
23-Aug	1	1	0	0	0	0	0	0	0	0	2	0	0	0	1	2	0	0	0	0
24-Aug	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
25-Aug	1	2	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
26-Aug	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
27-Aug	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Aug	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
29-Aug	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
30-Aug	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-Aug	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
01-Sep	13	8	1	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	0	0
02-Sep	5	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
03-Sep			0	0			0	0			0	0			0	0			0	1
04-Sep			0	0			0	0			2	0			0	0			0	0
Totals	157	127	5	5	6	19	1	1	4	5	7	7	49	40	32	24	3	3	0	1

Table B-7. Daily catches, numbers of fish marked, and CPUE (catch per hour) for Pacific lamprey captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE
21-May	0	0	0	0	-	0	0	0	0	0.00										
22-May	0	0	0	0	-	0	0	0	0	0.00										
23-May	0	0	0	0	-	0	0	0	0	0.00										
24-May	0	0	0	0	-	0	0	0	0	0.00										
25-May	0	0	0	0	0.00	0	0	0	0	0.00										
26-May	0	0	0	0	-	0	0	0	0	-										
27-May	0	0	0	0	-	0	0	0	0	-										
28-May	0	0	0	0	-	0	0	0	0	-										
29-May	0	0	0	0	-	0	0	0	0	-										
30-May	0	0	0	0	-	0	0	0	0	-										
31-May	0	0	0	0	-	0	0	0	0	-										
01-Jun	0	0	0	0	-	0	0	0	0	-										
02-Jun	0	0	0	0	0.00	0	0	0	0	-										
03-Jun	0	0	0	0	0.00	0	0	0	0	0.00										
04-Jun	0	0	0	0	0.00	0	0	0	0	0.00										
05-Jun	0	0	0	0	0.00	0	0	0	0	0.00										
06-Jun	0	0	0	0	-	0	0	0	0	-										
07-Jun	0	0	0	0	-	0	0	0	0	-										
08-Jun	0	0	0	0	0.00	0	0	0	0	0.00										
09-Jun	0	0	0	0	0.00	0	0	0	0	0.00										
10-Jun	0	0	0	0	0.00	0	0	0	0	0.00										
11-Jun	0	0	0	0	0.00	0	0	0	0	0.00										
12-Jun	1	1	0	0	0.04	0	0	0	0	0.00	0	0	0	0	0.00					
13-Jun	0	1	0	0	0.00	1	1	0	0	0.04	0	0	0	0	0.00					
14-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	-					
15-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	-					
16-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	-					
17-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	-					

Table B-7. Daily catches, numbers of fish marked, and CPUE (catch per hour) for Pacific lamprey captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE
18-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	-					
19-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	0.00					
20-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	0.00					
21-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	0.00					
22-Jun	0	1	0	0	0.00	0	1	0	0	0.00	0	0	0	0	0.00					
23-Jun	1	2	1	1	0.03	2	3	2	2	0.08	1	1	0	0	0.04					
24-Jun	0	2	0	1	0.00	5	8	0	2	0.21	1	2	1	1	0.04	0	0	0	0	0.00
25-Jun	0	2	0	1	0.00	6	14	6	8	0.25	0	2	0	1	0.00	0	0	0	0	0.00
26-Jun	0	2	0	1	0.00	2	16	2	10	0.08	3	5	3	4	0.19	0	0	0	0	0.00
27-Jun	0	2	0	1	0.00	1	17	1	11	0.04	1	6	1	5	0.03	1	1	1	1	0.04
28-Jun	0	2	0	1	0.00	0	17	0	11	0.00	0	6	0	5	0.00	1	2	1	2	0.04
29-Jun	0	2	0	1	0.00	0	17	0	11	0.00	0	6	0	5	0.00	1	3	1	3	0.04
30-Jun	0	2	0	1	0.00	0	17	0	11	0.00	0	6	0	5	0.00	0	3	0	3	0.00
01-Jul	1	3	1	2	0.04	0	17	0	11	0.00	0	6	0	5	0.00	1	4	1	4	0.04
02-Jul	0	3	0	2	0.00	0	17	0	11	0.00	2	8	2	7	0.08	4	8	4	8	0.16
03-Jul	0	3	0	2	0.00	0	17	0	11	0.00	0	8	0	7	0.00	0	8	0	8	0.00
04-Jul	0	3	0	2	0.00	0	17	0	11	0.00	0	8	0	7	0.00	1	9	1	9	0.04
05-Jul	0	3	0	2	0.00	0	17	0	11	0.00	3	11	2	9	0.12	4	13	0	9	0.16
06-Jul	0	3	0	2	0.00	1	18	1	12	0.04	3	14	3	12	0.13	24	37	19	28	1.04
07-Jul	0	3	0	2	0.00	13	31	13	25	0.52	6	20	5	17	0.25	5	42	3	31	0.32
08-Jul	0	3	0	2	0.00	5	36	4	29	0.22	0	20	0	17	0.00	0	42	0	31	0.00
09-Jul	0	3	0	2	0.00	0	36	0	29	0.00	0	20	0	17	0.00	0	42	0	31	0.00
10-Jul	0	3	0	2	0.00	0	36	0	29	0.00	0	20	0	17	0.00	0	42	0	31	0.00
11-Jul	0	3	0	2	0.00	0	36	0	29	0.00	0	20	0	17	0.00	0	42	0	31	0.00
12-Jul	0	3	0	2	0.00	0	36	0	29	0.00	0	20	0	17	0.00	5	47	5	36	0.21
13-Jul	0	3	0	2	0.00	0	36	0	29	0.00	2	22	1	18	0.08	2	49	1	37	0.08
14-Jul	1	4	1	3	0.04	0	36	0	29	0.00	5	27	4	22	0.22	4	53	2	39	0.18
15-Jul	0	4	0	3	0.00	0	36	0	29	0.00	2	29	1	23	0.08	2	55	1	40	0.08

Table B-7. Daily catches, numbers of fish marked, and CPUE (catch per hour) for Pacific lamprey captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE
16-Jul	0	4	0	3	0.00	0	36	0	29	0.00	0	29	0	23	0.00	0	55	0	40	0.00
17-Jul	0	4	0	3	0.00	0	36	0	29	0.00	0	29	0	23	0.00	0	55	0	40	0.00
18-Jul	0	4	0	3	0.00	0	36	0	29	0.00	1	30	1	24	0.04	3	58	3	43	0.12
19-Jul	1	5	1	4	0.04	0	36	0	29	0.00	2	32	2	26	0.08	4	62	4	47	0.17
20-Jul	0	5	0	4	0.00	0	36	0	29	0.00	0	32	0	26	0.00	1	63	1	48	0.04
21-Jul	0	5	0	4	0.00	0	36	0	29	0.00	1	33	1	27	0.04	4	67	3	51	0.16
22-Jul	0	5	0	4	0.00	0	36	0	29	0.00	0	33	0	27	0.00	1	68	0	51	0.04
23-Jul	0	5	0	4	0.00	0	36	0	29	0.00	0	33	0	27	0.00	0	68	0	51	0.00
24-Jul	0	5	0	4	0.00	0	36	0	29	0.00	0	33	0	27	0.00	0	68	0	51	0.00
25-Jul	0	5	0	4	0.00	0	36	0	29	0.00	0	33	0	27	0.00	0	68	0	51	0.00
26-Jul	0	5	0	4	0.00	0	36	0	29	0.00	0	33	0	27	0.00	1	69	1	52	0.04
27-Jul	0	5	0	4	0.00	0	36	0	29	0.00	0	33	0	27	0.00	0	69	0	52	0.00
28-Jul	2	7	0	4	0.08	0	36	0	29	0.00	0	33	0	27	0.00	8	77	8	60	0.31
29-Jul	1	8	1	5	0.04	1	37	1	30	0.04	1	34	1	28	0.04	2	79	1	61	0.08
30-Jul	1	9	1	6	0.04	0	37	0	30	0.00	4	38	1	29	0.17	1	80	0	61	0.04
31-Jul	0	9	0	6	0.00	1	38	1	31	0.04	0	38	0	29	0.00	2	82	1	62	0.08
01-Aug	3	12	1	7	0.13	0	38	0	31	0.00	0	38	0	29	0.00	3	85	3	65	0.13
02-Aug	1	13	1	8	0.04	0	38	0	31	0.00	1	39	0	29	0.04	4	89	3	68	0.18
03-Aug	2	15	2	10	0.09	0	38	0	31	0.00	2	41	2	31	0.08	3	92	0	68	0.12
04-Aug	1	16	1	11	0.04	0	38	0	31	0.00	1	42	0	31	0.04	1	93	0	68	0.04
05-Aug	3	19	3	14	0.13	0	38	0	31	0.00	4	46	4	35	0.17	6	99	5	73	0.25
06-Aug	4	23	4	18	0.17	0	38	0	31	0.00	5	51	5	40	0.21	13	112	7	80	0.54
07-Aug	2	25	2	20	0.09	0	38	0	31	0.00	1	52	1	41	0.04	6	118	6	86	0.25
08-Aug	0	25	0	20	0.00	0	38	0	31	0.00	1	53	1	42	0.05	2	120	1	87	0.09
09-Aug	0	25	0	20	0.00	1	39	1	32	0.04	0	53	0	42	0.00	1	121	1	88	0.04
10-Aug	0	25	0	20	0.00	1	40	0	32	0.04	1	54	1	43	0.04	3	124	3	91	0.13
11-Aug	1	26	1	21	0.04	1	41	1	33	0.04	1	55	1	44	0.04	6	130	5	96	0.25
12-Aug	1	27	1	22	0.04	1	42	1	34	0.04	6	61	6	50	0.25	4	134	3	99	0.17

Table B-7. Daily catches, numbers of fish marked, and CPUE (catch per hour) for Pacific lamprey captured in the Nass River fishwheels, 1997. A dash in CPUE column indicates zero hours effort for that day.

	Fishwheel 1					Fishwheel 2					Fishwheel 3					Fishwheel 4				
Date	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE	Catch	Cum.	Marked	Cum.	CPUE
13-Aug	0	27	0	22	0.00	2	44	2	36	0.09	2	63	1	51	0.08	3	137	2	101	0.13
14-Aug	0	27	0	22	0.00	0	44	0	36	0.00	0	63	0	51	0.00	2	139	2	103	0.09
15-Aug	0	27	0	22	0.00	1	45	1	37	0.04	1	64	1	52	0.04	0	139	0	103	0.00
16-Aug	1	28	1	23	0.04	0	45	0	37	0.00	0	64	0	52	0.00	1	140	1	104	0.05
17-Aug	0	28	0	23	0.00	0	45	0	37	0.00	0	64	0	52	0.00	1	141	1	105	0.04
18-Aug	0	28	0	23	0.00	0	45	0	37	0.00	0	64	0	52	0.00	0	141	0	105	0.00
19-Aug	2	30	1	24	0.08	0	45	0	37	0.00	0	64	0	52	0.00	9	150	9	114	0.40
20-Aug	0	30	0	24	0.00	0	45	0	37	0.00	1	65	0	52	0.04	5	155	4	118	0.24
21-Aug	4	34	3	27	0.18	0	45	0	37	0.00	0	65	0	52	0.00	9	164	8	126	0.37
22-Aug	4	38	4	31	0.16	0	45	0	37	0.00	0	65	0	52	0.00	5	169	5	131	0.23
23-Aug	3	41	3	34	0.13	0	45	0	37	0.00	0	65	0	52	0.00	2	171	2	133	0.08
24-Aug	1	42	0	34	0.04	0	45	0	37	0.00	0	65	0	52	0.00	1	172	1	134	0.04
25-Aug	0	42	0	34	0.00	0	45	0	37	0.00	0	65	0	52	0.00	0	172	0	134	0.00
26-Aug	0	42	0	34	0.00	0	45	0	37	0.00	0	65	0	52	0.00	0	172	0	134	0.00
27-Aug	0	42	0	34	0.00	0	45	0	37	0.00	0	65	0	52	0.00	0	172	0	134	0.00
28-Aug	0	42	0	34	0.00	0	45	0	37	0.00	0	65	0	52	0.00	2	174	2	136	0.08
29-Aug	0	42	0	34	0.00	0	45	0	37	0.00	0	65	0	52	0.00	0	174	0	136	0.00
30-Aug	0	42	0	34	0.00	2	47	2	39	0.09	3	68	2	54	0.11	2	176	1	137	0.07
31-Aug	5	47	5	39	0.19	0	47	0	39	0.00	0	68	0	54	0.00	10	186	10	147	0.52
01-Sep	7	54	6	45	0.29	3	50	2	41	0.12	6	74	0	54	0.23	7	193	0	147	0.26
02-Sep	7	61	4	49	0.35	1	51	1	42	0.05	0	74	0	54	0.00	1	194	1	148	0.04
03-Sep	0	61	0	49	-	0	51	0	42	-	1	75	1	55	0.05	4	198	0	148	0.18
04-Sep	0	61	0	49	-	0	51	0	42	-	0	75	0	55	0.00	3	201	1	149	0.17
Totals	59		48		2.51	34		31		1.43	69				2.86	198				8.59

Table B-8. Daily catches of Pacific salmon smolts captured in the Nass River fishwheels, 1997.

	Chinook				Sockeye				Coho				Steelhead			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
21-May	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
22-May	0	0	0	0	0	8	0	0	0	0	0	0	0	4	0	0
23-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	0	0	0	0	0	6	0	0	0	0	0	0	1	1	0	0
25-May	0	0	0	0	1	3	0	0	1	2	0	0	0	1	0	0
26-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-Jun	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
03-Jun	0	1	0	0	2	5	0	0	2	9	0	0	8	1	0	0
04-Jun	0	1	0	0	1	3	0	0	2	0	0	0	0	2	0	0
05-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
06-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-Jun	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
09-Jun	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10-Jun	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0
11-Jun	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
12-Jun	1	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0
13-Jun	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jun	0	0	0	0	1	1	0	0	0	0	0	0	2	1	0	0
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
18-Jun	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
19-Jun	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
20-Jun	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0

Table B-8. Daily catches of Pacific salmon smolts captured in the Nass River fishwheels, 1997.

	Chinook				Sockeye				Coho				Steelhead			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
22-Jun	0	0	0	0	0	0	1	0	0	0	1	0	0	0	3	0
23-Jun	0	0	1	0	0	0	0	0	2	1	0	0	0	1	0	0
24-Jun	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
25-Jun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
26-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jun	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
28-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
29-Jun	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
30-Jun	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0
01-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02-Jul	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
03-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-Jul	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
07-Jul	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-Jul	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
09-Jul	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
10-Jul	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0
11-Jul	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jul	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
16-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
18-Jul	1	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0
19-Jul	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0
20-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
21-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Jul	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
23-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table B-8. Daily catches of Pacific salmon smolts captured in the Nass River fishwheels, 1997.

	Chinook				Sockeye				Coho				Steelhead			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
24-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jul	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0
26-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jul	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
28-Jul	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
29-Jul	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
30-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-Aug	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3
02-Aug	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
03-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06-Aug	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
07-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08-Aug	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
09-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
10-Aug	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
11-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
15-Aug	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0
16-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Aug	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
18-Aug	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0
19-Aug	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
20-Aug	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
21-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Aug	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
23-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
24-Aug	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0

Table B-8. Daily catches of Pacific salmon smolts captured in the Nass River fishwheels, 1997.

	Chinook				Sockeye				Coho				Steelhead			
Date	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4	FW1	FW2	FW3	FW4
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Aug	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0
27-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
28-Aug	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
29-Aug	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
30-Aug	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
31-Aug	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0
01-Sep	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
02-Sep	0	0	0	0	0	0	0	0	3	0	3	3	1	0	0	0
03-Sep	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0
04-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	4	4	2	1	6	28	2	1	35	22	21	29	40	26	15	5

APPENDIX C

Summaries of recovery data for fish tagged at the Nass River fishwheels, 1997

Table C-1. Summary statistics of travel time data for chinook, sockeye, and coho salmon tagged at the Nass River fishwheels, 1997.

Recapture Location	Fish tagged at fishwheel 1									Fish tagged at fishwheel 2									Both fishwheels combined								
	Chinook			Sockeye			Coho			Chinook			Sockeye			Coho			Chinook			Sockeye			Coho		
	N	Mean	SD[a]	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Fishwheel 1	51	11	8	25	2	2	4	1	1	104	8	7	109	2	3	6	2	3	155	9	8	134	2	3	10	2	2
Fishwheel 2	37	10	8	36	2	2	5	8	8	19	10	9	88	2	3	2	6	6	56	10	8	124	2	3	7	7	7
Fishwheel 3	24	14	6	50	6	4	0	0	0	25	13	6	102	5	3	3	18	8	49	14	6	152	5	3	3	18	8
Fishwheel 4	48	15	6	56	5	3	1	9	-	45	15	6	104	5	3	2	11	4	93	15	6	160	5	3	3	10	3
Meziadin	0	0	0	748	22	7	0	0	0	1	31	-	1480	20	6	0	0	0	1	31	-	2228	21	7	-	-	-
Totals	160			915			10			194			1883			13			354			2798			23		

Table C-2. Travel time information for recoveries of tagged chinook salmon by location tagged and location recovered, 1997.

Travel time (d)	Fish tagged at fishwheel 1					Fish tagged at fishwheel 2						Fish tagged at fishwheel 3			Fish tagged at fishwheel 4				Grand Total
	Location recovered																		
	Fw1	Fw2	Fw3	Fw4	Total	Fw1	Fw2	Fw3	Fw4	Mez	Total	Fw3	Fw4	Total	Fw1	Fw3	Fw4	Total	
0	3	4	0	0	7	9	2	0	0	0	11	0	1	1	0	0	2	2	21
1	2	3	0	0	5	15	1	0	0	0	16	0	1	1	0	3	2	5	27
2	1	2	0	0	3	9	1	0	0	0	10	1	1	2	0	1	0	1	16
3	2	0	0	0	2	7	2	0	0	0	9	2	1	3	0	0	0	0	14
4	5	3	0	0	8	5	0	2	0	0	7	0	5	5	0	0	0	0	20
5	1	1	1	0	3	4	1	1	2	0	8	0	2	2	0	1	0	1	14
6	3	1	2	3	9	3	0	1	1	0	5	0	1	1	0	0	0	0	15
7	3	1	0	0	4	4	1	1	1	0	7	0	0	0	0	1	0	1	12
8	0	1	1	2	4	4	0	0	0	0	4	0	1	1	0	0	1	1	10
9	2	3	2	3	10	6	0	1	2	0	9	0	3	3	0	1	0	1	23
10	2	1	2	3	8	3	1	1	4	0	9	0	1	1	0	0	0	0	18
11	2	5	1	3	11	7	1	1	4	0	13	1	2	3	0	0	1	1	28
12	7	3	1	5	16	3	2	4	2	0	11	0	1	1	0	1	0	1	29
13	2	1	0	6	9	3	0	6	4	0	13	0	0	0	0	0	0	0	22
14	1	1	2	4	8	3	1	0	3	0	7	0	0	0	0	1	0	1	16
15	4	0	3	3	10	3	1	0	0	0	4	0	2	2	0	0	0	0	16
16	2	1	0	3	6	0	2	2	7	0	11	0	1	1	0	1	0	1	19
17	1	0	0	2	3	1	0	0	2	0	3	0	0	0	0	1	1	2	8
18	0	0	1	0	1	0	0	1	1	0	2	0	0	0	0	0	0	0	3
19	1	0	3	0	4	3	0	1	0	0	4	1	0	1	0	1	1	2	11
20	0	1	0	1	2	1	1	0	2	0	4	0	0	0	0	0	0	0	6
21	1	1	2	3	7	2	0	0	5	0	7	0	0	0	1	1	0	2	16
22	0	2	1	2	5	3	1	1	1	0	6	0	1	1	0	0	0	0	12
23	2	0	1	1	4	2	0	0	1	0	3	0	0	0	0	0	0	0	7
24	1	0	0	0	1	1	0	1	1	0	3	0	0	0	0	0	0	0	4
25	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
26	1	0	1	1	3	1	0	0	0	0	1	0	0	0	0	0	0	0	4
27	0	1	0	0	1	1	0	1	0	0	2	0	0	0	0	0	0	0	3
28	0	0	0	2	2	0	1	0	1	0	2	0	0	0	0	0	0	0	4
29	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
31	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
32	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Totals	51	37	24	48	160	104	19	25	45	1	194	5	24	29	1	13	8	22	405

Table C-3. Travel time information for recoveries of tagged sockeye salmon by location tagged and location recovered, 1997.

Travel time (d)	Fish tagged at fishwheel 1						Fish tagged at fishwheel 2						Grand Total
	Location recovered												
	Fw1	Fw2	Fw3	Fw4	Mez	Total	Fw1	Fw2	Fw3	Fw4	Mez	Total	
0	7	6	0	0	0	13	44	31	0	0	0	75	88
1	9	13	0	0	0	22	29	14	0	2	0	45	67
2	4	9	7	4	0	24	15	14	17	6	0	52	76
3	1	3	7	8	0	19	8	6	20	21	0	55	74
4	2	1	8	16	0	27	5	9	18	16	0	48	75
5	0	1	6	7	0	14	0	2	12	12	0	26	40
6	1	2	4	6	0	13	1	5	9	16	0	31	44
7	0	0	8	3	0	11	2	1	6	11	1	21	32
8	0	0	4	4	0	8	1	1	9	6	2	19	27
9	1	0	3	3	1	8	0	3	4	3	6	16	24
10	0	0	1	3	4	8	0	0	3	10	12	25	33
11	0	0	0	0	9	9	0	0	1	0	26	27	36
12	0	1	0	0	19	20	0	1	1	0	44	46	66
13	0	0	0	0	15	15	1	0	1	0	57	59	74
14	0	0	1	1	31	33	0	0	0	0	68	68	101
15	0	0	0	1	29	30	0	1	0	1	92	94	124
16	0	0	0	0	33	33	0	0	0	0	112	112	145
17	0	0	0	0	45	45	1	0	0	0	141	142	187
18	0	0	0	0	63	63	1	0	0	0	102	103	166
19	0	0	0	0	55	55	1	0	0	0	107	108	163
20	0	0	0	0	52	52	0	0	0	0	106	106	158
21	0	0	0	0	61	61	0	0	0	0	110	110	171
22	0	0	0	0	41	41	0	0	0	0	62	62	103
23	0	0	0	0	37	37	0	0	0	0	61	61	98
24	0	0	1	0	28	29	0	0	0	0	55	55	84
25	0	0	0	0	35	35	0	0	0	0	39	39	74
26	0	0	0	0	25	25	0	0	1	0	46	47	72
27	0	0	0	0	12	12	0	0	0	0	35	35	47
28	0	0	0	0	28	28	0	0	0	0	32	32	60
29	0	0	0	0	15	15	0	0	0	0	30	30	45
30	0	0	0	0	18	18	0	0	0	0	20	20	38
31	0	0	0	0	9	9	0	0	0	0	24	24	33
32	0	0	0	0	13	13	0	0	0	0	15	15	28
33	0	0	0	0	12	12	0	0	0	0	14	14	26
34	0	0	0	0	8	8	0	0	0	0	16	16	24
35	0	0	0	0	8	8	0	0	0	0	16	16	24
36	0	0	0	0	6	6	0	0	0	0	6	6	12
37	0	0	0	0	5	5	0	0	0	0	2	2	7
38	0	0	0	0	7	7	0	0	0	0	3	3	10
39	0	0	0	0	7	7	0	0	0	0	5	5	12
40	0	0	0	0	3	3	0	0	0	0	2	2	5
41	0	0	0	0	2	2	0	0	0	0	2	2	4
42	0	0	0	0	2	2	0	0	0	0	1	1	3
43	0	0	0	0	2	2	0	0	0	0	0	0	2
44	0	0	0	0	2	2	0	0	0	0	0	0	2
45	0	0	0	0	2	2	0	0	0	0	0	0	2

Table C-3. Travel time information for recoveries of tagged sockeye salmon by location tagged and location recovered, 1997.

Travel time (d)	Fish tagged at fishwheel 1						Fish tagged at fishwheel 2						Grand Total
	Location recovered												
	Fw1	Fw2	Fw3	Fw4	Mez	Total	Fw1	Fw2	Fw3	Fw4	Mez	Total	
46	0	0	0	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	1	1	0	0	0	0	0	0	1
48	0	0	0	0	0	0	0	0	0	0	2	2	2
49	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	1	1	0	0	0	0	0	0	1
51	0	0	0	0	0	0	0	0	0	0	1	1	1
52	0	0	0	0	1	1	0	0	0	0	1	1	2
53	0	0	0	0	0	0	0	0	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0
56	0	0	0	0	0	0	0	0	0	0	1	1	1
57	0	0	0	0	1	1	0	0	0	0	0	0	1
58	0	0	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	1	1	1
60	0	0	0	0	0	0	0	0	0	0	0	0	0
61	0	0	0	0	0	0	0	0	0	0	1	1	1
62	0	0	0	0	0	0	0	0	0	0	1	1	1
Totals	25	36	50	56	748	915	109	88	102	104	1480	1883	2798

Table C-4. Travel time information for recoveries of tagged coho salmon by location tagged and location recovered, 1997.

Travel time (d)	Fish tagged at fishwheel 1					Fish tagged at fishwheel 2						Fish tagged at fishwheel 4				Grand Total
	Location recovered															
	Fw1	Fw2	Fw3	Fw4	Total	Fw1	Fw2	Fw3	Fw4	Mez	Total	Fw1	Fw3	Fw4	Total	
0	1	1	0	0	2	1	0	0	0	0	1	0	0	0	0	3
1	2	0	0	0	2	2	1	0	0	0	3	0	0	0	0	5
2	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	2
3	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	3
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1
8	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
9	0	1	0	1	2	0	0	0	0	0	0	0	1	0	1	3
10	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1
11	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
12	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
13	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Totals	4	5	0	1	10	6	2	3	2	0	13	0	3	0	3	26

APPENDIX D

Daily counts of salmon at the Meziadin fishway and in-season sockeye escapement estimates, 1997

Table D-1. Daily counts of sockeye salmon through the Meziadin fishway, 5 July to 29 September 1997.

	Adults		Jacks		All sockeye		No. of tags counted		Recovered	Portion	Portion of adults tagged	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Total	Cum.	tags	recovered	Daily	Cum.
05-Jul	27	27	0	0	27	27	1	1	1	1.00	0.037	0.037
06-Jul	7	34	0	0	7	34	0	1	0		0.000	0.029
07-Jul	8	42	0	0	8	42	0	1	0		0.000	0.024
08-Jul	27	69	0	0	27	69	0	1	0		0.000	0.014
09-Jul	21	90	0	0	21	90	0	1	0		0.000	0.011
10-Jul	30	120	0	0	30	120	0	1	0		0.000	0.008
11-Jul	48	168	0	0	48	168	2	3	2	1.00	0.042	0.018
12-Jul	63	231	0	0	63	231	1	4	1	1.00	0.016	0.017
13-Jul	135	366	0	0	135	366	2	6	2	1.00	0.015	0.016
14-Jul	401	767	0	0	401	767	4	10	4	1.00	0.010	0.013
15-Jul	1340	2107	2	2	1342	2109	11	21	9	0.82	0.008	0.010
16-Jul	4289	6396	0	2	4289	6398	40	61	34	0.85	0.009	0.010
17-Jul	10,511	16,907	5	7	10,516	16,914	136	197	52	0.38	0.013	0.012
18-Jul	6278	23,185	11	18	6289	23,203	92	289	40	0.43	0.015	0.012
19-Jul	3707	26,892	15	33	3722	26,925	68	357	41	0.60	0.018	0.013
20-Jul	4170	31,062	24	57	4194	31,119	73	430	37	0.51	0.018	0.014
21-Jul	3301	34,363	13	70	3314	34,433	59	489	41	0.69	0.018	0.014
22-Jul	2001	36,364	13	83	2014	36,447	43	532	39	0.91	0.021	0.015
23-Jul	1470	37,834	12	95	1482	37,929	41	573	33	0.80	0.028	0.015
24-Jul	2511	40,345	17	112	2528	40,457	76	649	45	0.59	0.030	0.016
25-Jul	2837	43,182	36	148	2873	43,330	70	719	56	0.80	0.025	0.017
26-Jul	1952	45,134	25	173	1977	45,307	62	781	51	0.82	0.032	0.017
27-Jul	2113	47,247	21	194	2134	47,441	71	852	46	0.65	0.034	0.018
28-Jul	2091	49,338	34	228	2125	49,566	65	917	44	0.68	0.031	0.019
29-Jul	2274	51,612	32	260	2306	51,872	72	989	54	0.75	0.032	0.019
30-Jul	1731	53,343	32	292	1763	53,635	57	1046	46	0.81	0.033	0.020
31-Jul	1521	54,864	27	319	1548	55,183	35	1081	31	0.89	0.023	0.020
01-Aug	2117	56,981	22	341	2139	57,322	58	1139	41	0.71	0.027	0.020
02-Aug	2981	59,962	30	371	3011	60,333	71	1210	59	0.83	0.024	0.020
03-Aug	2483	62,445	35	406	2518	62,851	61	1271	45	0.74	0.025	0.020
04-Aug	2187	64,632	34	440	2221	65,072	59	1330	46	0.78	0.027	0.021

Table D-1. Daily counts of sockeye salmon through the Meziadin fishway, 5 July to 29 September 1997.

	Adults		Jacks		All sockeye		No. of tags counted		Recovered	Portion	Portion of adults tagged	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Total	Cum.	tags	recovered	Daily	Cum.
05-Aug	1916	66,548	19	459	1935	67,007	55	1385	44	0.80	0.029	0.021
06-Aug	1551	68,099	21	480	1572	68,579	46	1431	38	0.83	0.030	0.021
07-Aug	1504	69,603	20	500	1524	70,103	40	1471	36	0.90	0.027	0.021
08-Aug	1619	71,222	12	512	1631	71,734	27	1498	22	0.81	0.017	0.021
09-Aug	1859	73,081	26	538	1885	73,619	36	1534	29	0.81	0.019	0.021
10-Aug	1637	74,718	29	567	1666	75,285	37	1571	31	0.84	0.023	0.021
11-Aug	1820	76,538	25	592	1845	77,130	47	1618	35	0.74	0.026	0.021
12-Aug	1969	78,507	27	619	1996	79,126	46	1664	39	0.85	0.023	0.021
13-Aug	906	79,413	11	630	917	80,043	22	1686	20	0.91	0.024	0.021
14-Aug	521	79,934	8	638	529	80,572	3	1689	3	1.00	0.006	0.021
15-Aug	103	80,037	4	642	107	80,679	5	1694	2	0.40	0.049	0.021
16-Aug	294	80,331	8	650	302	80,981	4	1698	4	1.00	0.014	0.021
17-Aug	601	80,932	8	658	609	81,590	13	1711	12	0.92	0.022	0.021
18-Aug	862	81,794	6	664	868	82,458	6	1717	6	1.00	0.007	0.021
19-Aug	2888	84,682	49	713	2937	85,395	33	1750	23	0.70	0.011	0.021
20-Aug	3278	87,960	52	765	3330	88,725	41	1791	34	0.83	0.013	0.020
21-Aug	4528	92,488	75	840	4603	93,328	56	1847	41	0.73	0.012	0.020
22-Aug	3677	96,165	52	892	3729	97,057	54	1901	42	0.78	0.015	0.020
23-Aug	2248	98,413	30	922	2278	99,335	30	1931	24	0.80	0.013	0.020
24-Aug	1188	99,601	8	930	1196	100,531	20	1951	16	0.80	0.017	0.020
25-Aug	1750	101,351	15	945	1765	102,296	23	1974	17	0.74	0.013	0.019
26-Aug	2437	103,788	15	960	2452	104,748	31	2005	21	0.68	0.013	0.019
27-Aug	1501	105,289	13	973	1514	106,262	18	2023	15	0.83	0.012	0.019
28-Aug	1110	106,399	12	985	1122	107,384	12	2035	11	0.92	0.011	0.019
29-Aug	268	106,667	4	989	272	107,656	1	2036	1	1.00	0.004	0.019
30-Aug	1241	107,908	19	1008	1260	108,916	16	2052	13	0.81	0.013	0.019
31-Aug	3229	111,137	43	1051	3272	112,188	40	2092	30	0.75	0.012	0.019
01-Sep	5368	116,505	66	1117	5434	117,622	88	2180	52	0.59	0.016	0.019
02-Sep	4827	121,332	61	1178	4888	122,510	105	2285	66	0.63	0.022	0.019
03-Sep	3953	125,285	53	1231	4006	126,516	93	2378	55	0.59	0.024	0.019
04-Sep	3020	128,305	46	1277	3066	129,582	105	2483	63	0.60	0.035	0.019
05-Sep	3009	131,314	35	1312	3044	132,626	75	2558	53	0.71	0.025	0.019

Table D-1. Daily counts of sockeye salmon through the Meziadin fishway, 5 July to 29 September 1997.

	Adults		Jacks		All sockeye		No. of tags counted		Recovered	Portion	Portion of adults tagged	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Total	Cum.	tags	recovered	Daily	Cum.
06-Sep	2711	134,025	38	1350	2749	135,375	78	2636	61	0.78	0.029	0.020
07-Sep	2468	136,493	16	1366	2484	137,859	70	2706	56	0.80	0.028	0.020
08-Sep	1581	138,074	13	1379	1594	139,453	43	2749	36	0.84	0.027	0.020
09-Sep	1577	139,651	17	1396	1594	141,047	49	2798	35	0.71	0.031	0.020
10-Sep	1473	141,124	14	1410	1487	142,534	38	2836	29	0.76	0.026	0.020
11-Sep	1293	142,417	14	1424	1307	143,841	36	2872	27	0.75	0.028	0.020
12-Sep	1486	143,903	10	1434	1496	145,337	33	2905	30	0.91	0.022	0.020
13-Sep	1163	145,066	9	1443	1172	146,509	28	2933	26	0.93	0.024	0.020
14-Sep	1509	146,575	16	1459	1525	148,034	29	2962	24	0.83	0.019	0.020
15-Sep	1632	148,207	7	1466	1639	149,673	30	2992	23	0.77	0.018	0.020
16-Sep	1742	149,949	12	1478	1754	151,427	25	3017	21	0.84	0.014	0.020
17-Sep	1778	151,727	16	1494	1794	153,221	23	3040	18	0.78	0.013	0.020
18-Sep	1336	153,063	13	1507	1349	154,570	13	3053	9	0.69	0.010	0.020
19-Sep	978	154,041	17	1524	995	155,565	9	3062	9	1.00	0.009	0.020
20-Sep	1122	155,163	15	1539	1137	156,702	13	3075	12	0.92	0.012	0.020
21-Sep	820	155,983	6	1545	826	157,528	8	3083	8	1.00	0.010	0.020
22-Sep	320	156,303	5	1550	325	157,853	1	3084	0	4.00	0.003	0.020
23-Sep	423	156,726	3	1553	426	158,279	5	3089	4	0.20	0.012	0.020
24-Sep	263	156,989	1	1554	264	158,543	2	3091	1	0.50	0.008	0.020
25-Sep	262	157,251	1	1555	263	158,806	1	3092	1	0.00	0.004	0.020
26-Sep	192	157,443	0	1555	192	158,998	0	3092	0		0.000	0.020
27-Sep	323	157,766	2	1557	325	159,323	2	3094	0		0.006	0.020
28-Sep	421	158,187	6	1563	427	159,750	2	3096	0		0.005	0.020
29-Sep	469	158,656	1	1564	470	160,220	2	3098	0		0.004	0.020
Total	158,656		1564		160,220		3098		2228	0.72	0.020	

Table D-2. Daily counts of chinook, coho, steelhead and pink salmon through the Meziadin fishway, 5 July to 29 September 1997.

	Chinook							Coho											
	Adults		Tags		Cumulative	Jacks		Adults		Tags		Portion tagged		Jacks		Steelhead		Pink	
Date	Daily	Cum.	Daily	Cum.	portion tagged	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
05-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
06-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
07-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
08-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
09-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
10-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
11-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
12-Jul	0	0	0	0		0	0	0	0	0	0			0	0	0	0	0	0
13-Jul	1	1	0	0	0.000	0	0	0	0	0	0			0	0	0	0	0	0
14-Jul	2	3	0	0	0.000	1	1	0	0	0	0			0	0	0	0	0	0
15-Jul	4	7	0	0	0.000	0	1	0	0	0	0			0	0	0	0	0	0
16-Jul	1	8	0	0	0.000	0	1	0	0	0	0			0	0	0	0	0	0
17-Jul	6	14	0	0	0.000	1	2	0	0	0	0			0	0	0	0	0	0
18-Jul	11	25	0	0	0.000	0	2	0	0	0	0			0	0	0	0	0	0
19-Jul	22	47	1	1	0.021	0	2	0	0	0	0			0	0	0	0	0	0
20-Jul	17	64	1	2	0.031	0	2	0	0	0	0			0	0	0	0	0	0
21-Jul	20	84	0	2	0.024	0	2	0	0	0	0			0	0	0	0	0	0
22-Jul	18	102	2	4	0.039	3	5	0	0	0	0			0	0	0	0	0	0
23-Jul	22	124	1	5	0.040	0	5	0	0	0	0			0	0	0	0	0	0
24-Jul	14	138	2	7	0.051	0	5	0	0	0	0			0	0	0	0	0	0
25-Jul	16	154	2	9	0.058	3	8	0	0	0	0			0	0	0	0	0	0
26-Jul	10	164	0	9	0.055	1	9	0	0	0	0			0	0	0	0	0	0
27-Jul	7	171	0	9	0.053	0	9	0	0	0	0			0	0	0	0	0	0
28-Jul	17	188	0	9	0.048	2	11	0	0	0	0			0	0	0	0	0	0
29-Jul	22	210	0	9	0.043	0	11	0	0	0	0			0	0	0	0	0	0
30-Jul	11	221	2	11	0.050	0	11	0	0	0	0			0	0	0	0	0	0
31-Jul	11	232	0	11	0.047	0	11	0	0	0	0			0	0	0	0	0	0
01-Aug	5	237	1	12	0.051	0	11	0	0	0	0			0	0	0	0	0	0
02-Aug	6	243	1	13	0.053	0	11	0	0	0	0			0	0	0	0	0	0
03-Aug	9	252	0	13	0.052	0	11	0	0	0	0			0	0	0	0	0	0
04-Aug	9	261	0	13	0.050	1	12	0	0	0	0			0	0	0	0	0	0

Table D-2. Daily counts of chinook, coho, steelhead and pink salmon through the Meziadin fishway, 5 July to 29 September 1997.

	Chinook							Coho									
	Adults		Tags		Cumulative	Jacks		Adults		Tags		Portion tagged		Jacks		Steelhead		Pink	
Date	Daily	Cum.	Daily	Cum.	portion tagged	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
05-Aug	4	265	0	13	0.049	0	12	0	0	0	0			0	0	0	0	0	0
06-Aug	10	275	0	13	0.047	0	12	0	0	0	0			0	0	0	0	0	0
07-Aug	10	285	0	13	0.046	0	12	0	0	0	0			0	0	0	0	0	0
08-Aug	5	290	0	13	0.045	0	12	0	0	0	0			0	0	0	0	0	0
09-Aug	7	297	1	14	0.047	0	12	0	0	0	0			0	0	0	0	0	0
10-Aug	4	301	0	14	0.047	0	12	0	0	0	0			0	0	0	0	0	0
11-Aug	2	303	1	15	0.050	0	12	0	0	0	0			0	0	0	0	0	0
12-Aug	14	317	2	17	0.054	0	12	0	0	0	0			0	0	0	0	0	0
13-Aug	6	323	1	18	0.056	0	12	0	0	0	0			1	1	0	0	0	0
14-Aug	5	328	0	18	0.055	0	12	0	0	0	0			1	2	0	0	0	0
15-Aug	1	329	0	18	0.055	0	12	0	0	0	0			0	2	0	0	0	0
16-Aug	2	331	0	18	0.054	0	12	0	0	0	0			0	2	0	0	0	0
17-Aug	6	337	1	19	0.056	0	12	0	0	0	0			1	3	0	0	0	0
18-Aug	1	338	0	19	0.056	0	12	0	0	0	0			0	3	0	0	0	0
19-Aug	2	340	0	19	0.056	0	12	0	0	0	0			0	3	0	0	0	0
20-Aug	2	342	0	19	0.056	0	12	0	0	0	0			2	5	0	0	0	0
21-Aug	6	348	1	20	0.057	0	12	2	2	0	0	0.000	0.000	0	5	0	0	0	0
22-Aug	10	358	1	21	0.059	0	12	7	9	0	0	0.000	0.000	3	8	0	0	0	0
23-Aug	8	366	4	25	0.068	0	12	2	11	0	0	0.000	0.000	0	8	0	0	0	0
24-Aug	3	369	0	25	0.068	0	12	1	12	0	0	0.000	0.000	0	8	0	0	0	0
25-Aug	3	372	0	25	0.067	0	12	0	12	0	0		0.000	0	8	0	0	0	0
26-Aug	5	377	1	26	0.069	0	12	1	13	0	0	0.000	0.000	1	9	0	0	0	0
27-Aug	3	380	0	26	0.068	0	12	3	16	0	0	0.000	0.000	1	10	0	0	0	0
28-Aug	1	381	1	27	0.071	0	12	2	18	0	0	0.000	0.000	0	10	0	0	0	0
29-Aug	5	386	1	28	0.073	0	12	0	18	0	0		0.000	0	10	0	0	0	0
30-Aug	2	388	0	28	0.072	0	12	0	18	0	0		0.000	1	11	0	0	0	0
31-Aug	1	389	1	29	0.075	0	12	2	20	1	1	0.500	0.050	1	12	0	0	0	0
01-Sep	1	390	1	30	0.077	0	12	3	23	0	1	0.000	0.043	0	12	0	0	0	0
02-Sep	4	394	1	31	0.079	0	12	4	27	0	1	0.000	0.037	1	13	0	0	0	0
03-Sep	3	397	1	32	0.081	0	12	5	32	1	2	0.200	0.063	0	13	0	0	0	0
04-Sep	3	400	1	33	0.083	0	12	4	36	0	2	0.000	0.056	0	13	0	0	0	0
05-Sep	4	404	0	33	0.082	0	12	27	63	0	2	0.000	0.032	1	14	0	0	0	0

Table D-2. Daily counts of chinook, coho, steelhead and pink salmon through the Meziadin fishway, 5 July to 29 September 1997.

	Chinook							Coho										
	Adults		Tags		Cumulative	Jacks		Adults		Tags		Portion tagged		Jacks		Steelhead		Pink	
Date	Daily	Cum.	Daily	Cum.	portion tagged	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
06-Sep	2	406	0	33	0.081	0	12	17	80	1	3	0.059	0.038	2	16	0	0	0	0
07-Sep	2	408	0	33	0.081	0	12	31	111	2	5	0.065	0.045	0	16	0	0	0	0
08-Sep	4	412	0	33	0.080	0	12	19	130	1	6	0.053	0.046	0	16	0	0	0	0
09-Sep	5	417	1	34	0.082	0	12	18	148	2	8	0.111	0.054	1	17	0	0	0	0
10-Sep	2	419	0	34	0.081	0	12	18	166	0	8	0.000	0.048	1	18	0	0	0	0
11-Sep	4	423	2	36	0.085	0	12	17	183	0	8	0.000	0.044	0	18	0	0	0	0
12-Sep	5	428	1	37	0.086	0	12	16	199	0	8	0.000	0.040	0	18	0	0	0	0
13-Sep	4	432	0	37	0.086	0	12	13	212	1	9	0.077	0.042	0	18	0	0	0	0
14-Sep	2	434	0	37	0.085	0	12	25	237	4	13	0.160	0.055	0	18	0	0	0	0
15-Sep	4	438	1	38	0.087	0	12	59	296	2	15	0.034	0.051	1	19	0	0	0	0
16-Sep	7	445	2	40	0.090	0	12	60	356	4	19	0.067	0.053	0	19	0	0	0	0
17-Sep	7	452	1	41	0.091	0	12	75	431	5	24	0.067	0.056	2	21	0	0	0	0
18-Sep	5	457	0	41	0.090	0	12	50	481	3	27	0.060	0.056	2	23	0	0	0	0
19-Sep	3	460	1	42	0.091	0	12	22	503	1	28	0.045	0.056	0	23	0	0	0	0
20-Sep	1	461	0	42	0.091	0	12	29	532	3	31	0.103	0.058	4	27	0	0	0	0
21-Sep	8	469	2	44	0.094	0	12	35	567	5	36	0.143	0.063	2	29	0	0	0	0
22-Sep	2	471	0	44	0.093	0	12	9	576	1	37	0.111	0.064	1	30	1	1	0	0
23-Sep	2	473	0	44	0.093	0	12	6	582	0	37	0.000	0.064	0	30	0	1	0	0
24-Sep	1	474	0	44	0.093	0	12	3	585	1	38	0.333	0.065	0	30	0	1	0	0
25-Sep	1	475	0	44	0.093	0	12	11	596	1	39	0.091	0.065	0	30	1	2	0	0
26-Sep	0	475	0	44	0.093	0	12	6	602	0	39	0.000	0.065	0	30	0	2	0	0
27-Sep	6	481	1	45	0.094	0	12	5	607	0	39	0.000	0.064	0	30	0	2	0	0
28-Sep	3	484	2	47	0.097	0	12	18	625	1	40	0.056	0.064	0	30	0	2	0	0
29-Sep	2	486	0	47	0.097	0	12	14	639	1	41	0.071	0.064	0	30	1	3	0	0
Total	486		47			12		639		41		0.064		30		3		0	

Table D-3. The data used to derive the in-season sockeye salmon escapement estimates for the Nass River, 1997. These are preliminary data as presented during the season; refer to Appendix B for complete catch and tag totals.

	Fishwheel Catch				Fishwheel Tags					Grease Harbour (FW3&4)						Estimated escapement	
Date	Daily FW1	Daily FW2	Total	Cum. catch	Daily FW1	Daily FW2	Total	Cum. tagged	Prop. tagged	Catch (incl. recps)	Cum. catch	Raw Recaps	Cum. recaps	Adj. Recaps	Exp. Factor	Mark-Recap.	Expansion factor (fw1&2; 94-96)
03-Jun	0	0	0	0	0	0	0	0	0%								0
04-Jun	0	0	0	0	0	0	0	0	0%								0
05-Jun	0	0	0	0	0	0	0	0	0%								0
06-Jun	0	0	0	0	0	0	0	0	0%								0
07-Jun	0	0	0	0	0	0	0	0	0%								0
08-Jun	3	0	3	3	3	0	3	3	100%								75
09-Jun	2	5	7	10	0	1	1	4	14%								250
10-Jun	8	3	11	21	3	2	5	9	45%								525
11-Jun	2	5	7	28	2	2	4	13	57%								700
12-Jun	4	12	16	44	3	3	6	19	38%								1100
13-Jun	2	10	12	56	1	6	7	26	58%								1400
14-Jun	2	11	13	69	2	6	8	34	62%								1725
15-Jun	3	19	22	91	1	10	11	45	50%								2275
16-Jun	6	5	11	102	4	2	6	51	55%	0	0	0					2550
17-Jun	3	5	8	110	2	3	5	56	63%	0	0	0					2750
18-Jun	2	4	6	116	2	3	5	61	83%	0	0	0					2900
19-Jun	11	12	23	139	5	7	12	73	52%	2	2	0					3475
20-Jun	8	17	25	164	4	9	13	86	52%	5	7	0					4100
21-Jun	6	24	30	194	4	12	16	102	53%	0	7	0					4850
22-Jun	9	30	39	233	5	15	20	122	51%	5	12	0					5825
23-Jun	19	67	86	319	13	31	44	166	51%	8	20	0					7975
24-Jun	20	39	59	378	5	21	26	192	44%	4	24	0					9450
25-Jun	15	37	52	430	9	19	28	220	54%	6	30	0					10,750
26-Jun	16	76	92	522	9	36	45	265	49%	1	31	0					13,050
27-Jun	24	68	92	614	11	39	50	315	54%	8	39	0					15,350
28-Jun	33	52	85	699	20	22	42	357	49%	34	73	1	1	3			17,475
29-Jun	77	149	226	925	17	19	36	393	16%	31	104	0	1	0			23,125
30-Jun	36	427	463	1388	19	205	224	617	48%	48	152	1	2	2	19.2		31,644
01-Jul	39	216	255	1643	28	98	126	743	49%	51	203	1	3	3	17.4		34,653
02-Jul	50	247	297	1940	31	116	147	890	49%	52	255	1	4	5	13.4		38,158
03-Jul	99	222	321	2261	53	108	161	1051	50%	125	380	0	4	0	24.1		41,946
04-Jul	46	151	197	2458	27	72	99	1150	50%	231	611	5	9	17	15.1		44,270
05-Jul	29	76	105	2563	18	45	63	1213	60%	473	1084	2	11	7	24.0		45,509
06-Jul	84	183	267	2830	43	92	135	1348	51%	364	1448	12	23	32	16.5	56,268	48,660

Table D-3. The data used to derive the in-season sockeye salmon escapement estimates for the Nass River, 1997. These are preliminary data as presented during the season; refer to Appendix B for complete catch and tag totals.

	Fishwheel Catch				Fishwheel Tags					Grease Harbour (FW3&4)						Estimated escapement	
Date	Daily FW1	Daily FW2	Total	Cum. catch	Daily FW1	Daily FW2	Total	Cum. tagged	Prop. tagged	Catch (incl. recps)	Cum. catch	Raw Recaps	Cum. recaps	Adj. Recaps	Exp. Factor	Mark-Recap.	Expansion factor (fw1&2; 94-96)
07-Jul	27	34	61	2891	4	27	31	1379	51%	20	1468	0	23	0	17.6	57,208	49,380
08-Jul	52	122	174	3065	28	58	86	1465	49%	34	1502	3	26	5	15.0	59,643	51,433
09-Jul	100	244	344	3409	45	136	181	1646	53%	129	1631	4	30	6	16.4	63,911	55,492
10-Jul	115	260	375	3784	66	146	212	1858	57%	311	1942	10	40	13	12.2	68,346	59,917
11-Jul	74	181	255	4039	44	93	137	1995	54%	437	2379	6	46	12	20.7	71,026	62,926
12-Jul	105	211	316	4355	60	98	158	2153	50%	465	2844	12	58	35	15.4	74,557	66,655
13-Jul	61	148	209	4564	39	71	110	2263	53%	465	3309	15	73	37	14.0	77,332	69,121
14-Jul	61	133	194	4758	27	63	90	2353	46%	318	3627	14	87	32	12.4	80,158	71,410
15-Jul	66	154	220	4978	32	79	111	2464	50%	295	3922	8	95	19	11.8	83,556	74,446
16-Jul	69	164	233	5211	36	83	119	2583	51%	269	4191	9	104	16	10.5	86,960	78,128
17-Jul	68	200	268	5479	32	101	133	2716	50%	232	4423	7	111	10	11.2	91,231	82,362
18-Jul	82	186	268	5747	43	99	142	2858	53%	265	4688	4	115	7	13.3	94,464	86,596
19-Jul	71	162	233	5980	38	85	123	2981	53%	279	4967	12	127	22	14.6	97,562	90,278
20-Jul	90	90	180	6160	49	55	104	3085	58%	173	5140	4	131	8	15.4	99,807	93,122
21-Jul	68	106	174	6334	23	63	86	3171	49%	234	5374	8	139	17	14.6	102,082	95,871
22-Jul	90	167	257	6591	47	100	147	3318	57%	210	5584	2	141	4	15.9	105,223	99,932
23-Jul	91	200	291	6882	45	104	149	3467	51%	287	5871	15	156	27	12.1	109,259	104,529
24-Jul	107	220	327	7209	51	114	165	3632	50%	328	6199	10	166	18	13.3	114,018	109,696
25-Jul	126	199	325	7534	53	111	164	3796	50%	362	6561	13	179	25	12.5	119,511	114,831
26-Jul	121	162	283	7817	50	91	141	3937	50%	353	6914	10	189	20	13.1	124,892	119,302
27-Jul	77	106	183	8000	27	61	88	4025	48%	393	7307	10	199	23	12.2	129,072	122,194
28-Jul	81	107	188	8188	17	59	76	4101	40%	252	7559	5	204	11	13.9	134,409	125,164
29-Jul	67	100	167	8355	27	53	80	4181	48%	266	7825	5	209	10	14.6	140,300	127,803
30-Jul	40	114	154	8509	25	50	75	4256	49%	202	8027	3	212	5	16.9	144,866	130,236
31-Jul	91	111	202	8711	46	66	112	4368	55%	205	8232	4	216	6	19.0	150,715	134,286
01-Aug	117	83	200	8911	55	36	91	4459	46%	190	8422	4	220	6	22.8	156,556	139,146
02-Aug	123	54	177	9088	61	31	92	4551	52%	234	8656	2	222	3	28.4	161,278	143,447
03-Aug	70	56	126	9214	58	10	68	4619	54%	270	8926	2	224	4	35.3	164,371	146,509
04-Aug	114	66	180	9394	54	35	89	4708	49%	301	9227	6	230	13	29.6	169,558	150,883
05-Aug	101	103	204	9598	45	63	108	4816	53%	229	9456	4	234	8	29.0	175,980	155,840
06-Aug	89	108	197	9795	55	47	102	4918	52%	263	9719	4	238	8	29.2	181,119	160,627
07-Aug	67	64	131	9926	34	38	72	4990	55%	216	9935	3	241	6	26.7	184,741	163,811
08-Aug	52	73	125	10,051	27	36	63	5053	50%	166	10,101	2	243	4	24.5	188,076	166,848
09-Aug	65	79	144	10,195	28	40	68	5121	47%	189	10,290	2	245	4	28.8	191,704	170,347

Table D-3. The data used to derive the in-season sockeye salmon escapement estimates for the Nass River, 1997. These are preliminary data as presented during the season; refer to Appendix B for complete catch and tag totals.

	Fishwheel Catch				Fishwheel Tags					Grease Harbour (FW3&4)						Estimated escapement	
Date	Daily FW1	Daily FW2	Total	Cum. catch	Daily FW1	Daily FW2	Total	Cum. tagged	Prop. tagged	Catch (incl. rcps)	Cum. catch	Raw Recaps	Cum. recaps	Adj. Recaps	Exp. Factor	Mark-Recap.	Expansion factor (fw1&2; 94-96)
10-Aug	65	91	156	10,351	35	40	75	5196	48%	231	10,521	3	248	5	31.5	195,185	174,138
11-Aug	80	129	209	10,560	38	66	104	5300	50%	181	10,702	6	254	11	26.1	202,742	179,217
12-Aug	72	143	215	10,775	47	63	110	5410	51%	125	10,827	1	255	2	27.7	208,344	184,441
13-Aug	23	137	160	10,935	22	56	78	5488	49%	66	10,893	1	256	2	26.7	211,729	188,329
14-Aug	12	81	93	11,028	12	35	47	5535	51%	27	10,920	0	256	0	25.2	213,081	190,589
15-Aug	40	83	123	11,151	33	41	74	5609	60%	71	10,991	1	257	2	22.3	214,810	193,387
16-Aug	79	214	293	11,444	39	123	162	5771	55%	157	11,148	2	259	4	36.2	219,012	199,599
17-Aug	62	153	215	11,659	36	74	110	5881	51%	423	11,571	8	267	15	26.1	221,784	204,157
18-Aug	23	127	150	11,809	16	69	85	5966	57%	216	11,787	6	273	13	21.2	223,916	207,337
19-Aug	34	85	119	11,928	23	50	73	6039	61%	292	12,079	14	287	30	14.5	226,581	209,860
20-Aug	26	41	67	11,995	5	28	33	6072	49%	253	12,332	8	295	15	14.1	228,578	211,280
21-Aug	38	40	78	12,073	11	22	33	6105	42%	284	12,616	5	300	10	14.3	231,511	212,934
22-Aug	54	55	109	12,182	19	35	54	6159	50%	180	12,796	5	305	9	12.9	236,786	215,245
23-Aug	72	52	124	12,306	11	14	25	6184	20%	136	12,932	1	306	1	14.2	240,637	217,873
24-Aug	40	46	86	12,392	21	20	41	6225	48%	112	13,044	0	306	0	22.4	243,052	219,697
25-Aug	46	39	85	12,477	20	26	46	6271	54%	130	13,174	2	308	3	29.8	244,919	221,499
26-Aug	38	37	75	12,552	12	22	34	6305	45%	134	13,308	1	309	2	37.6	246,295	223,089
27-Aug	36	49	85	12,637	20	22	42	6347	49%	112	13,420	2	311	4	48.4	247,521	224,891
28-Aug	26	49	75	12,712	7	28	35	6382	47%	64	13,484	2	313	5	31.1	248,710	226,481
29-Aug	18	44	62	12,774	7	25	32	6414	52%	59	13,543	0	313	0	28.1	249,630	227,795
30-Aug	110	95	205	12,979	0	29	29	6443	14%	107	13,650	3	316	6	22.0	253,086	232,141
31-Aug	142	70	212	13,191	0	41	41	6484	19%	250	13,900	5	321	10	18.3	256,508	236,635
01-Sep	50	53	103	13,294	0	5	5	6489	5%	363	14,263	10	331	25	14.4	259,019	238,819
02-Sep	77	24	101	13,395	14	10	24	6513	24%	179	14,442	2	333	7	15.8	261,769	240,960
03-Sep				13,395	0	0	0	6513	0%	140	14,582	2	335	8	14.8	261,769	240,960
04-Sep				13,395	0	0	0	6513	0%	120	14,702	0	335	0	16.9	261,769	240,960
Total	4,719	8,676	13,395		2163	4350	6513			14,702		335		700			

APPENDIX E

Age and length data from fish captured in the Nass River fishwheels, 1997

Table E-1. Numbers of fish by age and length for chinook salmon sampled at the Nass River fishwheels, 1997.

Nose-fork	Numbers of fish by age class						Total	Fish sampled but not aged					Total	Percent
length (cm	41	42	52	62	63	83	aged	2M	3M	4M	MF	RG	ot aged	not aged
50	0	1	0	0	0	0	1	0	0	0	0	0	0	0
51	0	2	0	0	0	0	2	0	0	0	0	0	0	0
52	0	1	0	0	0	0	1	0	0	0	0	0	0	0
56	0	1	0	0	0	0	1	1	0	0	0	0	1	50
57	0	2	0	0	0	0	2	0	0	0	0	0	0	0
58	0	4	0	0	0	0	4	1	0	0	0	0	1	20
59	0	1	0	0	0	0	1	0	0	0	0	0	0	0
60	0	7	0	0	0	0	7	1	0	0	0	0	1	13
61	0	3	0	0	0	0	3	2	0	0	0	1	3	50
62	0	6	0	0	0	0	6	1	0	0	0	0	1	14
63	0	7	0	0	0	0	7	1	0	0	0	0	1	13
64	0	9	0	0	0	0	9	2	0	0	0	0	2	18
65	0	2	0	0	0	0	2	0	0	0	0	0	0	0
66	0	6	1	0	0	0	7	4	0	0	0	0	4	36
67	0	18	0	0	0	0	18	0	0	0	0	0	0	0
68	0	12	0	0	0	0	12	1	0	0	0	0	1	8
69	0	12	0	0	0	0	12	1	0	0	0	1	2	14
70	0	11	2	0	0	0	13	3	0	0	0	1	4	24
71	0	13	3	0	0	0	16	4	0	0	0	1	5	24
72	0	12	1	0	0	0	13	2	0	0	0	3	5	28
73	0	9	2	0	0	0	11	3	0	0	0	0	3	21
74	0	8	2	0	0	0	10	5	0	0	0	0	5	33
75	1	2	1	0	0	0	4	3	2	0	0	0	5	56
76	1	3	3	0	0	0	7	1	0	0	0	0	1	13
77	0	4	2	0	0	0	6	0	0	0	0	0	0	0
78	0	2	1	0	0	0	3	0	0	0	0	1	1	25
79	0	4	3	1	0	0	8	2	1	0	0	0	3	27
80	0	0	7	0	0	0	7	0	2	1	0	1	4	36
81	0	0	6	1	0	0	7	0	2	0	0	0	2	22
82	0	0	9	0	0	0	9	0	3	0	0	0	3	25
83	0	0	5	0	0	0	5	1	1	0	0	0	2	29
84	0	1	14	0	0	0	15	0	1	0	0	0	1	6
85	0	0	11	1	1	0	13	0	4	0	0	0	4	24
86	0	1	15	0	0	0	16	0	2	0	0	0	2	11
87	0	0	11	2	0	0	13	0	0	0	0	0	0	0
88	0	0	12	1	0	0	13	0	6	0	0	0	6	32
89	0	1	20	1	0	0	22	0	4	0	0	0	4	15
90	0	0	13	1	0	0	14	0	4	0	0	1	5	26
91	0	0	17	1	0	0	18	0	5	0	0	0	5	22
92	0	0	14	1	0	0	15	0	2	1	0	0	3	17
93	0	0	9	4	0	0	13	0	3	0	0	0	3	19
94	0	0	7	3	0	0	10	0	5	2	0	1	8	44
95	0	0	5	8	1	0	14	0	0	3	0	0	3	18

Table E-1. Numbers of fish by age and length for chinook salmon sampled at the Nass River fishwheels, 1997.

Nose-fork	Numbers of fish by age class						Total	Fish sampled but not aged					Total	Percent
length (cm	41	42	52	62	63	83	aged	2M	3M	4M	MF	RG	ot aged	not aged
96	0	1	4	0	0	0	5	0	2	0	0	0	2	29
97	0	0	3	1	0	0	4	0	1	0	0	0	1	20
98	0	0	3	2	0	0	5	0	1	0	1	0	2	29
99	0	0	2	2	0	0	4	0	0	0	0	0	0	0
100	0	0	2	4	0	0	6	0	1	1	0	0	2	25
101	0	0	0	2	0	0	2	0	0	1	0	0	1	33
102	0	0	1	2	0	0	3	0	0	1	0	0	1	25
103	0	0	0	3	0	0	3	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	1	0	0	0	1	100
105	0	0	0	0	0	0	0	0	0	1	0	1	2	100
106	0	0	1	1	0	0	2	0	0	1	0	0	1	33
107	0	0	0	1	0	0	1	0	0	1	0	0	1	50
108	0	0	0	1	0	0	1	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	1	0	0	0	1	100
110	0	0	0	1	0	0	1	0	0	0	0	0	0	0
113	0	0	0	0	0	1	1	0	1	0	0	0	1	50
115	0	0	0	1	0	0	1	0	0	0	0	0	0	0
Totals	2	166	212	46	2	1	429	39	55	13	1	12	120	22
Percent	0.5	38.7	49.4	10.7	0.5	0.2								

[a] Age error codes: M refers to marine annuli, the numbers refer to the number of marine annuli and RG is regenerated scale

Table E-2. Numbers of fish by age and length for sockeye salmon sampled at the Nass River fishwheels, 1997.

Nose-fork	Numbers of fish by age class										Number of fish sampled but could not be aged[a]							Percent
length (cm)	31	41	42	51	52	53	62	63	64	Total	2M	3M	RG	RS	S2	S3	Total	not aged
48	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
49	1	0	5	0	0	0	0	0	0	6	0	0	0	0	0	1	1	14
50	0	0	2	0	2	0	0	0	0	4	1	0	0	0	0	0	1	20
51	0	0	6	0	0	3	0	1	0	10	1	0	0	0	0	0	1	9
52	0	1	17	0	1	3	0	0	0	22	2	0	1	0	1	0	4	15
53	1	4	20	0	2	3	0	0	0	30	0	0	0	0	2	0	2	6
54	0	0	25	0	1	1	0	2	0	29	6	1	0	0	2	2	11	28
55	0	3	25	0	1	9	0	1	0	39	2	0	0	0	2	1	5	11
56	0	6	31	0	4	17	0	3	0	61	3	0	0	0	0	2	5	8
57	1	1	26	1	4	14	0	1	0	48	3	0	2	0	3	0	8	14
58	0	4	41	0	3	24	0	3	0	75	5	1	0	0	3	0	9	11
59	0	4	35	0	13	33	0	5	0	90	3	1	5	1	1	1	12	12
60	0	3	27	0	15	24	0	6	0	75	1	4	3	1	0	0	9	11
61	0	3	29	0	20	37	0	5	0	94	5	2	5	0	1	0	13	12
62	1	10	25	0	10	36	0	7	0	89	4	1	3	1	1	1	11	11
63	0	2	15	0	30	37	2	10	0	96	2	4	3	0	0	0	9	9
64	0	3	22	0	27	43	1	17	0	113	3	3	2	0	2	1	11	9
65	0	4	18	0	27	53	0	13	1	116	0	5	2	1	4	3	15	11
66	0	3	11	0	31	23	1	12	0	81	2	2	1	0	4	1	10	11
67	0	2	7	0	25	27	0	17	0	78	1	1	1	0	2	0	5	6
68	0	1	5	0	22	21	0	5	0	54	2	2	1	0	1	1	7	11
69	0	1	3	0	22	13	0	12	0	51	1	3	1	0	1	0	6	11
70	0	2	3	0	11	3	0	10	0	29	1	2	0	0	0	1	4	12
71	0	0	0	0	2	3	0	6	0	11	0	2	2	0	0	1	5	31
72	0	0	0	0	6	1	0	14	0	21	0	0	0	0	0	0	0	0
73	0	0	0	0	3	0	0	7	0	10	1	0	0	0	0	0	1	9
74	0	0	0	0	1	1	0	5	0	7	0	0	0	0	0	0	0	0
75	0	0	0	0	1	0	0	3	0	4	0	1	0	0	0	1	2	33
76	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Totals	4	57	399	1	284	429	4	166	1	1345	49	35	32	4	30	17	167	11

[a] Age error codes: 2M, 3M, refers to 1, 2 or 3 marine annuli; RG, regenerated; RS, resorbed; S2, sub-two (1 fresh water annulus); S3, sub-three (2 fresh water annuli).

Table E-3. Summary of weekly age composition of sockeye salmon sampled at the Nass River fishwheels, 1997.

Week	Stat.	Portion of	Numbers of fish by age class										Proportions by week								
ending	week	total run	31	41	42	51	52	53	62	63	64	Totals	31	41	42	51	52	53	62	63	64
21-Jun	22-25	0.0206	0	8	8	0	7	10	0	1	0	34	0.00	0.24	0.24	0.00	0.21	0.29	0.00	0.03	0.00
28-Jun	26	0.0505	2	12	12	0	5	4	1	2	0	38	0.05	0.32	0.32	0.00	0.13	0.11	0.03	0.05	0.00
05-Jul	27	0.1348	2	25	47	0	20	45	0	13	0	152	0.01	0.16	0.31	0.00	0.13	0.30	0.00	0.09	0.00
12-Jul	28	0.0988	0	3	53	0	34	39	0	11	0	140	0.00	0.02	0.38	0.00	0.24	0.28	0.00	0.08	0.00
19-Jul	29	0.0997	0	3	74	0	33	25	0	15	0	150	0.00	0.02	0.49	0.00	0.22	0.17	0.00	0.10	0.00
26-Jul	30	0.1514	0	3	61	0	37	39	0	13	0	153	0.00	0.02	0.40	0.00	0.24	0.25	0.00	0.08	0.00
02-Aug	31	0.1330	0	1	37	1	35	50	0	14	0	138	0.00	0.01	0.27	0.01	0.25	0.36	0.00	0.10	0.00
09-Aug	32	0.1042	0	2	30	0	17	72	2	26	1	150	0.00	0.01	0.20	0.00	0.11	0.48	0.01	0.17	0.01
16-Aug	33	0.0896	0	0	35	0	33	58	0	17	0	143	0.00	0.00	0.24	0.00	0.23	0.41	0.00	0.12	0.00
23-Aug	34	0.0497	0	0	16	0	21	52	1	33	0	123	0.00	0.00	0.13	0.00	0.17	0.42	0.01	0.27	0.00
30-Aug	35-36	0.0677	0	0	27	0	44	36	0	23	0	130	0.00	0.00	0.21	0.00	0.34	0.28	0.00	0.18	0.00
Totals		1.0000	4	57	400	1	286	430	4	168	1	1351	0.00	0.04	0.30	0.00	0.21	0.32	0.00	0.12	0.00
												Proportions weighted by portion of run:	0.004	0.052	0.308	0.001	0.209	0.308	0.003	0.113	0.001

Table E-4. Summary of the numbers and mean lengths (nose-fork, cm) of successfully aged sockeye salmon from the Nass River fishwheel catch, 1997.

	June			July			August			Total		
Age class	N	Mean	SD[a]	N	Mean	SD	N	Mean	SD	N	Mean	SD
31	3	53.0	4.0	1	62.0	-	0	-	-	4	55.3	5.6
41	26	60.9	5.3	29	60.4	4.1	2	61.0	1.4	57	60.7	4.6
42	22	58.0	3.5	259	59.3	4.5	117	57.8	4.5	399	58.8	4.5
51	0	-	-	1	57.0	-	0	-	-	1	57.0	-
52	14	65.7	3.2	144	65.3	3.9	126	63.4	4.3	284	64.5	4.2
53	17	60.4	3.1	178	62.2	4.3	234	62.7	3.8	429	62.4	4.0
62	1	63.0	-	0	-	-	3	64.3	1.5	4	64.0	1.4
63	3	63.6	3.2	60	67.4	3.6	103	65.5	5.5	166	66.2	4.9
64	0	-	-	0	-	-	1	65.0	-	1	65.0	-
Totals	86	60.7	3.9	672	62.1	5.1	587	62.4	5.0	1345	62.1	5.1

[a] Standard deviation

Table E-5. Numbers of fish by age and length for coho salmon sampled at the Nass River fishwheels, 1997.

Nose-fork	Numbers of fish by age class			Total	Fish sampled but not aged [a]		Total	Percent
length (cm)	32	43	54	aged	1M	RG	not aged	not aged
37	1	0	0	1	0	0	0	0
38	0	0	0	0	0	0	0	
39	0	0	0	0	0	0	0	
40	2	0	0	2	0	0	0	0
41	0	0	0	0	0	1	1	100
42	1	0	0	1	0	0	0	0
43	1	0	0	1	0	0	0	0
44	0	0	0	0	2	0	2	100
45	4	0	0	4	3	1	4	50
46	5	2	0	7	3	0	3	30
47	4	2	0	6	4	0	4	40
48	5	3	0	8	5	0	5	38
49	14	1	0	15	6	0	6	29
50	4	6	0	10	6	0	6	38
51	8	5	0	13	2	0	2	13
52	9	3	0	12	4	0	4	25
53	6	5	0	11	8	3	11	50
54	7	3	0	10	4	2	6	38
55	2	1	0	3	7	0	7	70
56	13	0	0	13	6	0	6	32
57	7	6	0	13	2	1	3	19
58	9	3	0	12	3	0	3	20
59	15	5	0	20	12	0	12	38
60	8	9	0	17	7	0	7	29
61	16	9	0	25	6	1	7	22
62	9	7	0	16	10	1	11	41
63	13	4	0	17	8	0	8	32
64	15	11	0	26	6	0	6	19
65	18	7	0	25	6	1	7	22
66	13	12	0	25	9	0	9	26
67	10	8	0	18	4	1	5	22
68	8	4	0	12	4	0	4	25
69	4	6	0	10	4	2	6	38
70	5	4	0	9	1	0	1	10
71	0	3	0	3	1	0	1	25
72	0	0	1	1	0	0	0	
73	0	0	0	0	0	0	0	
74	0	0	0	0	0	0	0	
75	0	1	0	1	0	0	0	0
76	0	0	0	0	2	0	2	100
Total	236	130	1	367	145	14	159	30
Percent	64.3	35.4	0.3					

[a] Age error codes: M refers to marine annuli, the numbers refer to the number of marine annuli and RG is regenerated scale.